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**Working Party on the Transport
of Dangerous Goods**

**Joint Meeting of the RID Safety Committee
and the Working Party on the Transport of
Dangerous Goods**
(Geneva, 14-24 March 2000)

PERIODIC INSPECTION BATTERY-VEHICLES/BATTERY-WAGONS

Transmitted by the European Industrial Gases Association (EIGA) */

Background to the proposal

At the last session of the Joint Meeting, EIGA's proposal in document -/1999/43 on the subject could not be adopted. The objective of this document is to submit a revised proposal taking into account the comments received during the discussions at the Joint Meeting.

The reasons justifying the proposal are unchanged: Ever since the publication of the January 1997 ADR/RID 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 and bundles according to marginal 2211. The reasons for this unhappy situation are twofold:

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- no provisions for the testing of the manifolding arrangement have been developed;
- the testing requirements have only been fixed for the elements and not for the rest of the equipment.

The same issues have been discussed in the working group established by the UN Sub-Committee of experts for the drafting of provisions for pressure receptacles and Multiple Elements Gas Containers (MEGC's). An agreement on the provisions of periodic inspections of pressure receptacles and MEGC's has been reached within the working group at the December meeting of the UN Sub-Committee. EIGA is proposing to adopt for battery-vehicles the same provisions as agreed upon for the MEGC's.

Proposal

In TRANS/WP.15/AC.1/1995/5, amend paragraphs 6.8.3.4.12 to 18 as follows:

6.8.3.4.12 (new from UN-WG) *The elements and items of equipment of each battery-wagons/battery-vehicles or MEGC shall be inspected and tested either together or separately before being put into service for the first time (initial inspection and test). Thereafter battery-wagons/battery-vehicles or MEGC shall be inspected at no more than five-year intervals. An exceptional inspection and test shall be performed regardless of the last periodic inspection and test when necessary according to 6.8.3.4.16.*

6.8.3.4.13 (= present 6.8.3.4.12 minus what is covered by paragraph 12)

The initial inspection shall include:

- *a check of conformity to the approved prototype;*
- *a check of the design characteristics;*
- *an examination of the internal and external conditions*
- *a hydraulic pressure test 14/ at the test pressure indicated on the dataplate;*
- *a leakproofness test and*
- *a check of satisfactory operation of the equipment.*

When the elements and their fittings have been pressure-tested separately, they shall be subjected together after assembly to a leakproofness test.

6.8.3.4.14 (= present 6.8.3.4.13 + present 6.8.3.4.14)

Cylinders, tubes and pressure drums and cylinders as part of bundles of cylinders shall be tested according to 6.2.1.4.

The test pressure of the manifold of the battery-wagon/battery-vehicle or MEGC shall be the same as that of the elements of the battery-wagon/battery-vehicle or MEGC. The pressure test of the manifold may be performed as a hydraulic test or by using another liquid or gas with the agreement of the competent authority or its authorised body (additional sentence from UN WG). By derogation from this requirement, the test pressure for the manifold of battery-wagon/battery-vehicle or MEGC shall be not less than 300 bar for 1001 acetylene, dissolved.

6.8.3.4.15 (new from UN-WG; includes content of present 6.8.3.4.16)

The periodic inspection shall include an external examination of the structure, the elements and the service equipment. The elements and the piping shall be tested at the periodicity defined in P200 and in accordance with the provisions described in 6.2.1.5. When the elements and equipment have been pressure-tested separately, they shall be subjected together after assembly to a leakproofness test.

6.8.3.4.16 (new from UN-WG; includes content of present 6.8.3.4.17)

An exceptional inspection and test is necessary when the battery-wagon/battery-vehicle or MEGC shows evidence of damaged or corroded areas, or leakage, or other conditions that indicate a deficiency that could affect the integrity of the battery-wagon/battery-vehicle or MEGC. The extent of the exceptional inspection and test shall depend on the amount of damage or deterioration of the battery-wagon/battery-vehicle or MEGC. It shall include at least the inspection required under 6.8.3.4.17

6.8.3.4.17 (new from UN-WG)

The examinations shall ensure that:

- (a) the elements are inspected externally for pitting, corrosion, or abrasions, dents, distortions, defects in welds or any other conditions, including leakage, that might render the battery-wagons/battery-vehicles or MEGC unsafe for transport;*
- (b) the piping, valves, and gaskets are inspected for corroded areas, defects, and other conditions, including leakage, that might render battery-wagons/battery-vehicles or MEGC unsafe for filling, discharge or transport;*
- (c) missing or loose bolts or nuts on any flanged connection or blank flange are replaced or tightened;*
- (d) all emergency devices and valves are free from corrosion, distortion and any damage or defect that could prevent their normal operation. Remote closure devices and self-closing stop-valves shall be operated to demonstrate proper operation;*
- (e) required markings on the battery-wagons/battery-vehicles or MEGC are legible and in accordance with the applicable requirements; and*
- (f) any framework, supports and arrangements for lifting the battery-wagons/battery-vehicles or MEGC are in satisfactory condition.*

6.8.3.4.18 (present text)

The tests, inspections and checks in accordance with 6.8.3.4.12 to 6.8.3.4.17 shall be carried out by the expert approved by the competent authority. Certificates shall be issued showing the results of these operations. These certificates shall refer to the list of the substances permitted for carriage in this battery-wagon/battery-vehicle or MEGC in accordance with 6.8.2.3.1.
