

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

**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**

AEGPL Informal Paper for amendment of ADR/RID
(TRANS/WP.15/AC.1/2003/6/Rev)

Summary :

It is proposed to add a new special requirement into Packing Instruction P200 to cover the requirements for periodic inspection of new types of LPG cylinders with a capacity less than 15 litres.

Justification :

The current requirements included in § 6.2.1.6.1 on periodic inspection are not applicable to new types of small LPG cylinders with a capacity less than 15 litres in service since 1997 in France and since 1998 in Belgium & Portugal.

These steel cylinders are complying with ADR/RID requirements as far as their design & construction are concerned (ϵ & π cylinders).

They are coated with moulded polyurethane material protecting against impact and corrosion (see attached document) and therefore cannot suitably satisfy to the external examination or to the hydraulic pressure test requirements of § 6.2.1.6.1 :

- external examination : the steel wall of the cylinder is not visible and so the external part of the polyurethane coating can only be examined.
- hydraulic pressure test : for identical reasons, only pressure withstanding can be checked.

New testing procedures for the inspection of these new cylinders have been developed in parallel with the development of their design & manufacture.

These procedures are statistical based methods which have been agreed by the French Competent Authorities.

They are including :

- specific rejection criteria at the time of filling : external examination of the polyurethane coating
- testing on samples on statistical basis per manufacture batches as far as periodic inspection is concerned.

Testing procedures are including :

- burst tests in order to check the quality & the reliability of the manufacture of the pressure receptacles
- uncoating of the polyurethane layer in order to check its good adhesivity & the absence of corrosion at the steel and polyurethane interface.

Intervals between the initial hydraulic pressure test and the following periodic inspection is currently being fixed to ten years starting from the date of manufacture with a first intermediary inspection after three years.

Longer intervals between 2 inspections might be considered when more experience will be gained.

Up to now (after 5 years in service), no incident has been recorded either in service or during the tests.

Proposal :

To create a new special requirement in P200 with the following content :

“For welded steel cylinders of capacity less than 15 litres, coated with a non-detachable plastic material & dedicated to the carriage of Liquefied Petroleum Gases, periodic inspection may be replaced by other testing procedures which shall guarantee an equivalent safety level :

- a) with the agreement of the Competent Authority(ies) of the country(ies) where periodic inspection and carriage take place
- b) in accordance with the dispositions of a technical code or a standard recognised by the Competent Authority(ies) of the country(ies) where periodic inspection and carriage take place”.