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Proposal regarding the reference to CEN standards in ADR/RID
(TRANS/WP15/AC.1/2002/14)

Transmitted by the European Liquefied Petroleum Gas Association (AEGPL)

The European LPG Association has some concerns over the proposal to reference composite cylinder standard EN12245 in ADR/RID.

Whilst it is no doubt appropriate to the relatively controlled conditions of the (permanent) compressed and special gas industries, AEGPL do not believe it is appropriate for general LPG use.

Since the scope of the standard does not exclude LPG, cylinders manufactured to this standard could be used in the LPG Industry without their adequate safety being demonstrated.

These concerns have been addressed within CEN/TC286, where a new standard for LPG composite cylinders is being produced (pr EN14427).

The concerns relate to the prototype testing, the severity of which is considered insufficient to ensure safe use in the commercial LPG Industry.

^{*}/ Circulated by the Central Office for International Carriage by Rail (OCTI) under the symbol OCTI/RID/GT/III/2002/24.

The service performance of conventional metallic cylinders is well established, but the use of composites is much less established and so it is appropriate to take a cautious approach in writing standards for these cylinders.

One of the major concerns over the use of composite cylinders in the commercial LPG Industry, is the possibility of undetected structural damage to the reinforcing fibres, within the matrix, due to impact or other customer abuse.

Such damage may not be detected during pre-fill checks within a typical filling plant environment and may lead to a subsequent failure of the cylinder in service.

Because of this possibility, AEGPL believe that tests must be specified, which adequately represent reasonably foreseeable misuse of the cylinder in service.

EN12245 address this by specifying a drop from 1.2 m onto a flat surface, typically representing a fall from a stationary lorry or loading bank.

AEGPL consider this inadequate to represent foreseeable falls for LPG cylinders. Experience has shown that, particularly on construction sites, cylinders may be thrown from considerable heights onto rough ground.

Metallic cylinders are usually rendered unserviceable but they do not release the remaining product and the damage is clearly visible.

prEN14427 will include more severe drop tests to simulate this type of accident.
