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PROPOSED REFERENCES TO CEN STANDARDS IN ADR/RID

Transmitted by the European Liquefied Petroleum Gas Association (AEGPL) */

The European LPG Association has some concerns over the proposal to reference composite cylinder and aluminium cylinder standards in ADR/RID (prEN 12245, prEN 12257 and EN 12862).

These standards have been produced by CEN/TC 23, and whilst they are no doubt appropriate to the relatively controlled conditions of the (permanent) compressed and special gas industries, AEGPL do not believe they are appropriate for general LPG use.

Since the scope of the standards does not exclude LPG, cylinders made to these standards could be used in the LPG Industry without their adequate safety being demonstrated.

These concerns are being addressed within CEN/TC286, where new standards for LPG composite cylinders and LPG aluminium cylinders have been agreed by the Technical Committee then by the CEN management, and finally are being produced.

***/** Circulated by the Central Office for International Carriage by Rail (OCTI) under the symbol OCTI/RID/GT/III/2001/2.

All these standards are based on CEN/TC 23 standards but modified to make them appropriate to the service conditions experienced in the commercial LPG Industry during more than 60 years of practice.

Concerns about TC 23 composite cylinder standards (prEN 12245 and prEN 12257)

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

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.

In comparison with the (permanent) compressed and special gas industries, the commercial LPG industry has virtually no control over the type of customer or use of their cylinders and, because of the large throughput at filling plants, is not able to apply sophisticated pre-fill inspection techniques, relying on basic visual examination.

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 readily found during pre-fill checks within a typical LPG filling plant environment and may lead to a subsequent failure of the cylinder in service.

Because of this possibility, the industry believes that tests must be specified, which adequately represent reasonably foreseeable misuse of the cylinder in service. The proposed TC23 standards 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 unfit for further service, but they do not release the remaining product and the damage is clearly visible. The TC286 composite cylinder standard will include more severe drop tests to simulate this type of incident.

Because of these concerns, AEGPL does not believe that an unrestricted reference to these standards in ADR/RID, is appropriate.

Proposal

AEGPL proposes that any reference to prEN 12245, prEN 12257 and prEN 12862 should specifically exclude their use for the transport of commercial LPG.

As soon as they will be published, LPG composite cylinder and aluminium cylinder standards should be proposed for inclusion in ADR/RID.

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