INF. 11: Sample Testing for Partial Substitution of Periodic Inspection of Individual Cylinders and on documents

INF. 19 and 26 about Periodic inspection and test of some transportable refillable LPG steel cylinders in RID/ADR

Transmitted by the European Liquefied Petroleum Gas Association (AEGPL)

AEGPL prepared this document to answer comments during the consultation phase.

Comment about document INF 11 (transmitted by Government of Germany)

AEGPL would like to emphasize that the proposal needs to clearly state that a sampling testing method shall only be allowed if it is fully described in the TDG regulation.

If INF 11 is accepted in principle, AEGPL proposes to add a point (e) in the proposed new section 6.2.3.5.3 “General provisions for the substitution of required periodic inspection methods”:

(e) An individual periodic inspection check shall only be replaced by a destructive test if the testing method is described either in this clause or in a special provision of 3.3.1.

Comment about INF.26 (transmitted by the Government of Sweden)

AEGPL would like to point out that its proposal is only to replace 6.2.1.6.1 (a) “check of the external conditions of the pressure receptacle” and (d) “hydraulic pressure test” as the design of OMC (over-moulded cylinders) prevents the correct performance of these tests: each OMC is individually (100%) externally inspected but the over-moulding case, which is bunded to the cylinder, is not considered as a pressure receptacle and can prevent detection of minor leaks.

The prEN16728 is under public enquiry and will be modified (table 1) to make it clear that annex F about OMC sampling is only for 6.2.1.6.1 (a) and (d).

Comment about INF.19 (transmitted by the Government of Spain)

As written in standard ISO 16269-6 mentioned in Multilateral Agreement M247, and in prEN 16728 on Periodic Inspection, a statistical method is possible only if distribution is normal (Gaussian curve). Annex 5 of ECE/TRANS/WP.15/AC.1/2014/48 (in document
INF.5) explains with an example how it can be checked that this distribution is normal (Gaussian curve). It can be added in prEN16728 to check that the distribution is normal.

Annex 6 of the same document demonstrates that exposing OMC to accelerate ageing test (including salt spay and pressure cycling) and extreme temperature test has no impact on over-moulding adhesion.

Specific treatments in RID/ADR for periodic inspections already benefit other types of cylinders, with exemption of test described in 6.2.1.6.1 of RID/ADR:

- Acetylene cylinders: exemption of internal conditions test and hydraulic pressure test: see 6.2.1.6.2,
- LPG cylinders of less than 6.5 l: replacement of hydraulic pressure test: see note at 6.2.3.5.1,
- Cryogenic cylinders: exemption of internal conditions and check of the external condition of the receptacles: see 6.2.3.5.2.

Moreover AEGPL would like to remind that OMCs are individually (100%) visually inspected before any filling and individually (100%) leak tested after each filling. The visual inspection is done by a qualified operator, using detailed criteria (see EN1439).

The AEGPL proposal clearly specifies that an OMC needs to be equipped with specific overmoulded case and an electronic tag, linked to a database, which are additional costs comparing to traditional cylinders.

**Amendment on ECE/TRANS/WP.15/AC.1/2014/48 (transmitted by AEGPL)**

Moreover AEGPL would like to correct an editorial mistake in its proposal ECE/TRANS/WP.15/AC.1/2014/48: elementary design information shall be added in section 6.2.3.1 which is about design and construction and not in section 6.2.3.5 which is about periodic inspection and test. So proposal would be as below:

“Add a paragraph 6.2.3.5.3 6.2.3.1.6 additional requirement for the construction of over-moulded cylinders

Over-moulded cylinders shall be produced serially based on steel cylinders in accordance with EN1442, EN14140 or annex I, parts 1 to 3 to Council Directive 84/527/EEC. Each cylinder shall be fitted with an individual resilient identification electronic tag or an equivalent device linked to an electronic database. The design of the over-moulding case shall prevent water penetrating to the inner steel cylinder. The conversion of the base steel cylinder to an over-moulded cylinder shall conform to the relevant requirements of EN1442 and EN14140.”

The other parts of the proposal remain unchanged.