Periodic inspection and test of some transportable refillable LPG steel cylinders – amendments to ECE/TRANS/WP.15/AC.1/2015/48

Transmitted by the European Liquefied Petroleum Gas Association (AEGPL) on behalf of the Working Group on Alternative Methods for Periodic Inspections

General

Following reading of the translated versions of Working Document ECE/TRANS/WP.15/AC.1/2015/48, minor changes were deemed necessary to ensure clarity in the aforesaid working document.

This INF paper presents the modified versions of 2 paragraphs of the of Working Document ECE/TRANS/WP.15/AC.1/2015/48. The modified parts are shown as underlined.

Modification of paragraph (h) in proposal 1

(h) Assessment of the method

The safety level of this alternative statistical method shall be validated by an independent institute, experienced in statistics and pressure receptacles. This expert analysis shall assess the distribution function and shall take into account potential modifications caused by service degradation. If action of an independent institute is stipulated in the procedure, the conclusions resulting from this assessment shall be confirmed by the competent authority of the owner’s country.

The alternative statistical method shall ensure a safety level not lower than the level resulting from the retest method to be substituted.

Modification of the first two paragraphs of the note below table in paragraph (f) in proposal 2

(*) For each of the two groups of figures (burst pressure and volumetric expansion), the “right” unilateral statistical tolerance interval shall be
calculated for a confidence level of 95% and a coverage of population equal to 99%. The calculation is made in accordance with the standard ISO 16269-6:2005 admitting, for each of the OMC inspection lots, the normal distributed property of the population, with an assumed unknown variance.

Tests results for each sample shall be checked with respect to their type of distribution function. If tests results do not follow a normal distribution, the relevant distribution shall be used to make the calculation, and this additional complement shall be validated by an independent institute and confirmed by the competent authority, according to sub-section (h) of 6.2.3.5.3.1.