

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods

16 March 2015

Bern, 23-27 March 2015

Item 6 of the provisional agenda

Reports of informal working groups

Report of the Informal Working Group on alternative methods for periodic inspection of transportable refillable cylinders

**Transmitted by the European Liquefied Petroleum Gas Association
(AEGPL), on behalf of the Working Group**

Introduction/Background

1. This Working Group was created following a decision of the September 2014 RID/ADR Joint Meeting. The subject has been in discussion during the four last Joint Meetings, and related information was provided in the previous documents ECE/TRANS/WP.15/AC.1/2014/48 and ECE-TRANS-WP15-AC1-2014-GE-INF5e.

2. The mandate given by the September 2014 RID/ADR Joint Meeting to the informal working group was:

“to examine alternative methods for the periodic inspection that guaranteed a safety level equivalent to that for the methods in 6.2.1.6.1 of RID/ADR on the basis of test results and risk assessment and to explore the possibility of a method combining tests for each cylinder individually and tests by sampling and statistical evaluation. The group would work in the first instance on the case of over-moulded LPG cylinders, and further on on other cases »

3. Protected over-moulded cylinders (OMCs) have a coated welded steel inner pressure receptacle over-moulded with a non porous material, which is fully bonded to the pressure receptacle and whose integrity ensures the integrity of the metallic inner pressure receptacle. They are designed for carriage of LPG (UN1011, UN1965, UN1969 and UN1975). Due to their specific design, the pressure test and the external check of the pressure receptacle, required by RID/ADR in 6.2.1.6 a) and d) for the periodic inspection, are not relevant. An alternative way of inspecting the cylinders has been developed.

Work Progress

4. As agreed, the meeting took place in Paris on the 7th and 8th of January 2015, in physical presence of Austria, France, Germany, Switzerland and AEGPL, but as well in virtual presence by conference call of Belgium and Spain.

5. According to the mandate, the working group started first with over-moulded cylinders, and has progressed a proposal, trying to ease the general understanding of the step by step method developed in France and Belgium.

During the session, AEGPL introduced as well a summary of the risk assessment started in 2000/2001/2002 by the French Administration and BUTAGAZ about the proposed method combining tests for each cylinder individually and destructive tests by sampling and statistical evaluation. Main tests results carried out in the past were presented.

Further documents have been circulated since the January meeting by AEGPL on the Risks Assessments (RA):

- (a) proposal of a RA framework,
- (b) a draft RA application table to OMC comparing full current ADR requirements with the alternative proposed method.

Both documents still to be discussed in further detail.

6. The pending points to be discussed further, following the January meeting are the following:

- (a) the use of a database;
- (b) the problem of changing owners;
- (c) the effect and the justification of random sampling;
- (d) the continuation of the risk assessment discussion;
- (e) Improvements of related standards (Design & Manufacturing, Controls at Filling, Periodic Testing);
- (f) Commitment of the “inspection body” along the whole process.

7. Dealing with possible “General Rules”, the Germany delegate showed an updated draft proposal of document ECE/TRANS/WP.15/AC.1/2014/INF11 on Sample Testing for Partial Substitution of Periodic Inspection of Individual Cylinders. Due to a lack of time, this proposal has not been discussed yet in detail by the working group.

There are discussions within the WG members whether this should be worked in detail first or in a second time following the OMC specific case.

Conclusion/Further Actions

8. It is proposed to progress both proposals in parallel, and bring out from the “real” 1st case (return of experience and related risks assessments on OMC), the strict required general conditions to be included in a general provision to allow in general the possible replacement of “a to e” individual tests by an alternative method.

9. In view of the September 2015 RID/ADR JM, a further WG meeting will take place before June, to progress the here-below agenda:

- (a) The pending points (in 6 above);
- (b) The general provision (in 7 above) proposal (to be prepared as a Working Document);
- (c) Finalization of the OMC proposal (to be prepared as a Working Document).
