

D R A F T**RID/ADR/ADN**

Joint Meeting of the RID Committee of Experts and the
Working Party on the Transport of Dangerous Goods
(Geneva, 23 - 27 March 2009)

Agenda item 7 of the agenda: Reports of informal Working Groups**Working Group on periodicity of testing of cylinders****Submitted by Germany on behalf of the Working Group**

This informal document is related to document ECE/TRANS/WP.15/AC.1/2009/6

Introduction:

In document ECE/TRANS/WP.15/AC.1/2009/6 the Joint Meeting was informed about the progress made in many areas at the meeting of the informal working group on periodicity of testing of cylinders held in Brussels on 16th and 17th of December 2008. However, not all technical issues could be solved in that meeting and that the working group agreed to hold another meeting.

Information:

The informal working group met again on 09th and 10th of March 2009 in Potsdam (Germany). The meeting was hosted by the Ministry of Infrastructure and Regional Development of the Federal State of Brandenburg and chaired by Gregor Oberreuter of the Federal Ministry for Transport, Construction and Urban Affairs (BMVBS, Germany).

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Discussion:

The group discussed all outstanding technical issues to achieve a harmonised system to grant a 15-year testing interval to welded steel cylinders for LPG, in particular questions related to the

- valves suitable to be fitted to cylinders with a 15-year interval for periodic inspection;
- marking of cylinders with a 15-year interval;
- transitional period needed to establish the new harmonised system for granting a 15-year testing interval;
- most appropriate location for the new provisions in RID/ADR.

Results:

All outstanding issues have been discussed and agreement was achieved for the provisions to be included in RID/ADR.

As the time between the meeting in Potsdam and the start of the session of the Joint Meeting on 23rd of March 2009 is rather short, final editorial work on the document to be submitted cannot be finished and will be done by correspondence during the next few weeks. The working group will submit its proposal in a formal document for the session of the Joint Meeting in September 2009.

The Working Group during its discussions came to the conclusion, that many of the requirements for a 15 year test for LPG cylinders which were being proposed for inclusion in RID/ADR were also likely to be suitable and useful for periodic inspections of pressure receptacles in general. It was agreed, that they should be listed and submitted to the Joint Meeting to decide on appropriate action.

Future work:

Once the finalised proposal is submitted to the Joint Meeting for its session in September 2009, the working group will have completed its mandate.

However, if the Joint Meeting decides that the periodic inspection requirements for other types of pressure receptacle should receive similar consideration the working group offers to carry out the work to develop a concrete proposal to amend RID/ADR accordingly.

This idea arose during the working group's discussions on producing harmonised requirements for a 15 year test interval for LPG welded steel cylinders, when it became clear that EIGA favoured an extension of the work to cover other types of cylinders for certain groups of gases.

The working group clarified that this would first need a formal proposal submitted by EIGA to the Joint Meeting and a clear mandate given by the Joint Meeting to the working group.

However, taking into account the collective expertise of those already participating, most of the members of the informal working group indicated their interest and were prepared to take part in such future work, once the mandate had been given; in addition others who had the relevant background and experience would also be invited to attend.

Annexes:

Annex I to this informal document are the agreed minutes of the meeting of the informal working group in Brussels (16th and 17th of December 2008); annex II are the draft minutes of the meeting in Potsdam (09th and 10th of March 2009).

Proposal:

The Joint Meeting is invited to take note of the progress made and to ask the informal working group to submit its proposal as formal document in due course for the session of the Joint Meeting in September 2009.

Annex I to Inf. 33

Informal Meeting on periodicity of testing of cylinders Brussels (Belgium) 16./17.12.2008

Minutes and Conclusions of the meeting

As agreed by the working group during its meeting in Potsdam on 09./10.03.2009

Background:

For the Joint Meeting RID/ADR/ADN in September 2008, Germany had – on behalf of the Working Group – presented document OTIF/RID/RC/2008/13 (ECE/TRANS/WP.15/AC.1/2008/13). The document contained the report of the previous meeting of the Working Group in Muenster in June 2008, dealing with the possible extension of the interval for the periodic inspection of steel gas cylinders from 10 to 15 years.

Following the discussions of the Joint Meeting (see report OTIF/RID/RC/2008/.B - ECE/TRANS/WP.15/AC.1/112, §§ 38 to 40), the Association of European Liquefied Petroleum Industry (AEGPL) and the Chair had invited the Working Group for a follow-up meeting, which took place in Brussels (Belgium) on 16./17. December 2008 at the premises of AEGPL.

Participation

Representatives of the following countries took part: Belgium, France, Germany, Sweden, Switzerland and United Kingdom. Representatives of the following organisations took part: AEGPL (including DVFG and CFBP as Members of AEGPL), ECMA, EIGA (including IGV as Member of EIGA); for details see annex 1 (list of participants) and annex 2 (list of distribution). The meeting was hosted by AEGPL and chaired by BMVBS (Gregor Oberreuter).

Agenda item 1 (Welcome)

Mr. Segarra on behalf of AEGPL welcomed the participants.

Agenda item 2 (Agenda)

The Chair had prepared a draft agenda (see annex 3), which was adopted.

Agenda item 3 (State of play)

The Chair shortly introduced the meeting documents and recalled the results of the meeting in Muenster and of the Joint Meeting in September 2008 (see report OTIF/RID/RC/2008/B

(ECE/TRANS/WP.15/AC.1/112), §§ 38 to 40).

B expressed some concern about the complex system under development in the Working Group and questioned the safety need for such provisions. In Belgium, for many years cylinders for LPG were used with a 15-year-interval for periodic inspection without any additional provisions to RID/ADR and B had found out no serious safety concern or bad experience.

The Chair recalled that the Working Group started from an evaluation which countries use the current clause in RID/ADR P 200 (10) v and how they do it. The finding was that the requirements and provisions applied varied very widely from no additional provisions via various more or less complex and sophisticated systems to a refusal of application. So it was concluded, that a harmonised solution does not exist and will need sufficient time and efforts to be developed.

SWE added, that the extension clause for a 15-year period was never used in Sweden and that the Swedish approach to the work of the group is very restrictive. SWE retained its positions that it is not correct to have an interval of 15 years on a pi-marked cylinder, recalling the discussion of the EU TPED expert group on the proposal CLAP T 29 from France for a guideline, which was not adopted. Furthermore SWE stated interest to take part in the justifications that have been used in the countries concerned when the interval has been extended. Just to state that “nothing has happened” would not be seen as a sufficient justification.

UK pointed out that there was a need for harmonisation of requirements, but that the current regulatory system of allowing the option of 15 years with competent authority approval had been in use in the UK for a number of years without problems.

F highlighted that the interval for periodic inspection of welded LPG cylinders in RID/ADR currently is 10 years and that the extension to 15 years is only applicable to the national market and transport and that much more specific provisions and requirements are needed to obtain a harmonised system for RID/ADR. Nevertheless F saw no problem to mark such cylinders with the pi-mark according to TPED; they could then be used for all RID/ADR countries for just 10 years and for the 15 year interval only within the home country.

D supported the view, that a simple extension of the interval to 15 years without any additional and specific provisions for safety reasons is not an option to agree on.

B added to his view, that then the new more stringent system should be applied only for international market and transport, but that it should remain possible to apply no additional requirements for the national market and transport – including new cylinders being placed on the market now and in future. F basically shared this view.

CH therefore saw need to precise within the future revised TPED, that such cylinders authorised for national market and transport only shall not bear a pi-mark.

To move on, the Chair proposed to concentrate on developing the harmonised solution to be proposed for RID/ADR 2011, to discuss and redraft transitional provisions afterwards and to discuss the question whether to pi-mark cylinders restricted for national market and transport with the European Commission. This approach was agreed.

Belgium added that many of the provisions drafted by the group do not seem to be specific to cylinders for a 15-year interval, but would be useful and increase safety for all types of cylinders undergoing periodic inspections. It was agreed, that such an approach was not in the specific task of the group, but that it should be brought to the attention of the Joint Meeting and that provisions suitable for general application to cylinders should be listed separately from the proposal.

Agenda item 4 (Technical issues)

As a left-over from the meeting in Muenster the question whether to require a burst-test was discussed.

F informed that cylinders currently having been granted a 15-year-interval in France have been produced from 1961 to 1998 according to national provisions based on a national technical code. From 1999 cylinders in France are produced according to EN 1442:1998. F deems both to be of equivalent safety. From the 34 million cylinders presented for a 15-year interval, 171.000 have been refused for, mainly because of findings in the examination and tests including a burst test of representative samples.

F further pointed out, that to achieve a compromise, F would be ready to accept a solution without requiring a burst-test on samples, if the owner would be obliged to carry out a detailed analysis of his cylinders and their materials in general and specifically in the case that a cylinder fails in the hydraulic pressure test.

After a detailed discussion, this was principally agreed by the Working Group. It should be proposed for the 15-year interval and be listed as also being useful for cylinders in general. Following that progress, the Working Group discussed the text for provisions as drafted by the Chair and amended it according to its decisions at the previous meeting (see annex 4).

SWE expressed that all requirements of 6.2.1.6.1 a) to e) should be mandatory and asked of the notes 1 and 2 regarding alternative testing should be applicable.

Based on a document prepared by D and commented by CFBP, a detailed discussion came up on the question of valves to be fitted to cylinders with a 15-year-interval. It was explained that

EN 14912 permits and addresses maintenance with minor or major repairs, refurbishment and periodic inspection of valves. From 2009 RID/ADR firstly clarifies that also valves may be periodically inspected.

Some participants felt that only new or refurbished valves should be fitted to cylinders for a 15 year lifetime. It was highlighted that mostly valves are replaced by new ones at the time of periodic inspection. It was added that within UK and D it is common practice to exchange valves for new ones during periodic inspections and that no refurbishing took place.

Others saw no difference for a 10 or 15 or 20 years lifetime. Valves may have to be changed during the period of use in between periodic inspections for safety reasons (e.g. damage or malfunctioning), so they saw no need to impose a requirement for an obligatory exchange of valve for a new one at periodic inspections. Even though mostly, valves are exchanged it should be possible to check, inspect and refit them.

AEGPL and EIGA/IGV gave information that various existing types may have varying design lifetimes shorter than 15 year, but that depending on the type of valve they may have a longer lifetime, e.g. the manually operated valves used in France. Available data may support this. So it should remain open to either fit a new valve or to refit a refurbished or inspected valve. This was principally agreed; it was deemed to be an approach suitable for cylinders in general and independent from the 15-year-interval.

It was felt, that permitting refurbished or inspected valves may need an addition to the requirements for filling centres; this may not affect all types of valves, but only certain types; this may need further consideration at the next meeting.

Concerning a potential need to check the upper part of cylinders for internal corrosion by endoscope, it was pointed out that this does not appear to be necessary for cylinders, which have been filled with pure LPG specifically free of corrosion contaminates as addressed in the approach drafted. But as this requirement is not part of RID/ADR before 2011, it may still be possible that LPG not fulfilling these stringent requirements for purity may be filled into cylinders. So it was suggested that an examination of the upper part of a cylinder by endoscope should be carried out,

- if it is not sure that only LPG free of corrosion contaminates had been filled before, and
- if internal corrosion has been found at the body (wall or bottom) of the cylinder.

After a short discussion, the working Group agreed that there is a need for a simple but specific marking to differentiate the 15-year cylinders according to the new harmonised system

from those having been granted a 15-year interval on the national level only; furthermore such a marking would be helpful also for operational reasons.

Agenda item 5 (Final Proposal)

Some editorial amendments to the draft provisions were made. But as – due to time reasons – not all technical issues discussed could be included in the text, the proposal could not be finalised at this meeting.

Item 6 (Next steps)

It was agreed that the Chair shall submit a short status report as a formal document to the Joint Meeting in March 2009. To meet the deadline for submission, it will not be possible to send this to the participants as a draft for comments.

Note: See Document OTIF/RID/RC/2009/6 (ECE/TRANS/WP.15/AC.1/2009/6).

The Working Group agreed on the 09./10.03.2009 for the next and hopefully final meeting. It is envisaged to finalise the proposal during that meeting, to inform the Joint Meeting in March by an Informal Document and to present the proposal for adoption to the Joint Meeting in September 2009.

Germany offered to host the next meeting of the Working Group in the greater Berlin area.

Note: See invitation of BMVBS to Potsdam.

Item 7 (Any other business)

EIGA highlighted that it is intending to propose a similar approach to obtain a 15-year testing interval also for other types of cylinders for certain gases.

Item 8 (Editorial review of proposal and justification)

Not addressed.

Annex II of Inf.33

**Informal Meeting on periodicity of testing of cylinders
Potsdam (Germany) 09./10.03.2009**

D R A F T

Minutes and Conclusions of the meeting

Background:

For the Joint Meeting RID/ADR/ADN in March 2009 – on behalf of the Working Group – Germany has submitted document OTIF/RID/RC/2009/6 (ECE/TRANS/WP.15/AC.1/2009/6). The document gives a status report of the work of the working group following the meeting in Brussels (Belgium) on 16./17. December 2008.

As not all issues could be solved in that meeting, the working group needed a further meeting, which was held on 09./10. March 2009 in Potsdam (Germany) at the premises of the Ministry of Infrastructure and Regional Development (MIR) of the Federal State of Brandenburg.

Participation

Representatives of the following countries took part: France, Germany, Switzerland and United Kingdom. Representatives of the following organisations took part: AEGPL (including DVFG and CFBP as Members of AEGPL), EIGA (including IGV as Member of EIGA); for details see annex 1 (list of participants) and annex 2 (list of distribution). The meeting was hosted by MIR Brandenburg and chaired by BMVBS (Gregor Oberreuter).

Agenda item 1 (Welcome)

Mr. Ulrich Mehlmann, Head of Department 4 of MIR Brandenburg welcomed the participants. He highlighted the long history and gave information on some sights of the town of Potsdam. He specially welcomed the representatives of AEGPL and EIGA.

Agenda item 2 (Agenda)

The agenda, which was adopted as drafted (see annex 3).

Agenda item 3 (Brussels minutes)

The minutes of the meeting in Brussels were adopted as drafted by the chair with some amendments as suggested by AEGPL, Sweden and the United Kingdom (see annex 4).

Agenda item 4 (State of play)

The Chair shortly introduced the meeting documents and recalled the results of the meeting in

Brussels and of the Joint Meeting in September 2008 (see report OTIF/RID/RC/2008/B (ECE/TRANS/WP.15/AC.1/112), §§ 38 to 40).

Agenda item 5 (technical issues)

a) Valves

Germany (Dr. Aris) first recalled the background of the issue and the discussions held so far during the meeting in Brussels. He highlighted that there are three possible procedures to take into account at the time of periodic inspection:

- exchange the valve for a new one;
- refit a valve refurbished according to EN 14912:2005;
- refit a valve inspected according to EN 14912:2005.

The working group confirmed that only valves designed and capable for a 15 year interval shall be fitted. New valves conforming to EN 13152:2001 + A1:2003 or EN 13153:2001 + A1:2003 are considered suitable for a 15 year interval. It was discovered that meanwhile for manually operated valves (especially valves with handrail as used in France) sufficient technical experience exists with refitting of refurbished valves; no such experience can be claimed for automatically working valves.

After discussion the working group came to the conclusion that properly refurbished manually operated valves may be deemed equivalent to newly manufactured ones. Although in France also manually operated valves having been checked according to EN 14912:2005 were refitted after periodic inspection, the working group was not of the view that sufficient evidence to permit this for cylinders with a 15 year interval was existing and therefore did not reach an agreement. It was explained that during refurbishing, the valve is demounted and some parts (especially sealing) are changed, which is not done in case of an inspection. Furthermore an inspection of any valve and a check for tightness are usually to be carried out after each filling.

As the manufacturer can certify his design to be suitable for a 15 year interval, the question arose who could take similar responsibility for a refurbished valve. It was finally agreed to start from the usual practice to exchange the valve at a periodic inspection and to permit refitting of refurbished manually operated valves, but no agreement was achieved to permit refitting of inspected valves to cylinders with a 15 year interval. Refurbishing shall be carried out by the manufacturer or according to his instruction by a qualified enterprise operating a documented quality system.

- marking

It was confirmed that a short marking is needed to differentiate the cylinders with a 15 year interval according to the new harmonised RID/ADR/ADN system from those according to a non-harmonised national system. This mark should be durable and clearly visible, but not irreversible as the cylinder may not be permitted for 15 year intervals for the whole of its life cycle. For valves a special marking was not deemed to be necessary.

b) Transitional Provisions

The draft prepared by the chair was discussed and simplified. It shall be permitted, that new cylinders may be supplied to the existing national system for national use with a 15 year interval until 31. December 2014. This date was chosen as AEGPL explained that from 2011 the first year may be needed for transposition of the new provisions into national law and then three years were needed for establishing the documented QS systems by owners and filling centres and for applications to competent authorities/Xa bodies to grant the 15 year interval for types or groups of cylinders.

Cylinders operated under such a national system may continue to be operated under this system as long as the national competent authority decides. As requirements for these national systems are not harmonised, the working group strongly recommends not applying the pi-mark to such cylinders to avoid any confusion with the internal market regime of the EU and with the market surveillance system required under the new regulation (EC) 765/2008.

New cylinders manufactured from 1. January 2011 and intended for a 15 year interval may and from 1. January 2015 shall be subject of the new harmonised provisions if a 15 year interval is applied for by the owner. Existing cylinders may be introduced into the harmonised RID/ADR/ADN system for a 15 year interval, if they meet the requirements. No final date should be set (similar to the re-assessment according to TPED).

It was the general view of the working group that such a gliding transitional period would ease transition and lead in the longer term to increased use of cylinders operating under the harmonised 15 year RID/ADR/ADN system.

c) Location of provisions

After having checked the options presented by the chair, it was quickly agreed to include the new harmonised provisions for a 15 year interval for welded steel cylinders for LPG in a new paragraph 12 in P 200. The current provisions in P 200 (10) v should be amended to exclude welded steel cylinders for LPG and should reference to the new paragraph 12 instead. It was mentioned that this location is most appropriate for the time being, but may be reconsidered

once other types of cylinders may be granted a 15 year interval as EIGA is intending to propose.

Agenda item 6 (Final proposal)

To the draft provisions for the new system – as far as they had been agreed in the Brussels meeting – comments had been received from AEGPL and Sweden.

The comments from AEGPL were discussed. It was confirmed to specify the monitoring of documented QS systems to avoid any inconsistency between no check at all or all five years only on the one hand and checks following ISO standard procedures being deemed too excessive for full application in this case. As further outcome of the discussions it was agreed for existing cylinders not being covered by a type approval to avoid the words “batch” or “lot” as they are linked to production batches or lots and are defined in standards, but to use the term “group” to identify cylinders of same design and construction and to specify this term in a note.

The comments from Sweden were discussed as follows:

1. SWE comment: X.1.2 should be turned around so it only accepts a designation to a Xa body.

Approach taken by WG: reworded to clarify that the competent authority may only delegate these tasks to a Xa body, but not to a Xb or IS body.

2. SWE comment: X.2 and X.2.1: How can a filling station determine that a cylinder that is to be filled, not has been filled at a filling station not conforming to X.2.1?

Approach taken by WG: The filling centre has to verify, if the marking for a 15 year interval is present and if the cylinder belongs to a known owner. The owner has to make sure that his 15 year cylinders are only filled in qualified filling centres. So they both have to ensure this in co-operation. Their QS systems for these procedures will be monitored by the body authorising it. This was seen as a practically closed system.

3. SWE comment: X.2.5 Annex E.1, letter b refers to ISO 9162, why is there a reference to EN 1440:2008?

Approach taken by WG: ISO 9162 shall not be applied in total and as EN 1440:2008 is more familiar to LPG industry, the reference was kept. It was confirmed that not all LPG on the European market fulfils such corrosion contaminates levels, it depends on origin. LPG imported from third countries e.g. Russia or Kazakhstan does normally not fulfil these levels of purity. Furthermore the requirement to fill only high quality LPG of such purity is not and will not be mandatory prior to the 1.1.2011, when this

requirement is bound to enter into force.

4. SWE comment: How will this requirement increase the safety? And if there is a safety problem, why should not all LPG fulfil the requirements of ISO 9162 when filled into cylinders?

Approach taken by WG: This is an appropriate measure to reduce internal corrosion for cylinders with a 15 year interval. It would be desirable to require this for all LPG cylinders, but in practice it would not be able to meet this in any case because of increasing imports of LPG from outside EU.

5. SWE comment: X.3.1 refers to 6.2.3.5, which refers to 6.2.1.6.1. Will (a) to (e) in 6.2.1.6.1 be mandatory to apply? Will note 1 and 2 be applicable?

Approach taken by WG: 6.2.1.6.1 (a) to (e) is mandatory for any periodic inspection of cylinders already. Note 1 is fully applicable and there was seen no reason to limit Note 2; as for welded cylinders ultrasonic testing is not applicable, application of Note 2 is fairly limited.

It was highlighted that some notes and special provisions related to LPG are not consistent as they mention different UN numbers, e.g. Note to 6.2.3.5.2. The working group would favour to introduce a definition for LPG in 1.2.1 of RID/ADR/ADN to contain all UN numbers to be covered by that term. This is seen as a chance for tidying up and simplifying such provisions. It was agreed to add this to the list of additional proposals to be discussed for general application by the Joint Meeting.

The remaining parts of the draft provisions not yet discussed in previous meetings were discussed and agreement was achieved.

Agenda item 7 (next steps)

The working group had agreed on the wording to be proposed. For elaboration of the complete document including explanations and the justification, it was agreed to finalise this work by corresponding on the basis of a draft to be prepared by the chair.

It was agreed to submit an Inf. Paper to the Joint Meeting in March to report about the meeting in Potsdam. The agreed minutes of the meeting in Brussels and the draft minutes of the meeting in Potsdam should be attached to it.

The final proposal will be submitted in due course as official document to the Joint Meeting in September 2009 for adoption.

Agenda item 8 (Any other business)

No item was discussed.