

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

Eighty-seventh session
Geneva, 2-6 November 2009
Agenda item 4

WORK OF THE RID/ADR/ADN JOINT MEETING

Chapter 1.6 : Transitional measures

Transmitted by the Government of Sweden

Executive summary:	The transitional measures concerning flame traps or flame arresters proposed by the Joint-Meeting for sub-sections 1.6.3.39 and 1.6.4.37 need to be amended.
Decision to be taken:	Amend the proposed transitional measures for sub-sections 1.6.3.39 and 1.6.4.37 adopted by the Joint meeting in September 2009.
Related documents:	<p>ECE/TRANS/WP.15/AC.1/116/Add.1 - Report of the Joint Meeting September 2009 - (Draft amendments to RID/ADR/ADN for entry into force on 1 January 2011)</p> <p>ECE/TRANS/WP.15/AC.1/112/Add.1 - Report of the Joint Meeting September 2008 - Report of the working group on tanks</p> <p>ECE/TRANS/WP.15/AC.1/2009/10 - (Germany) Flame arrester requirements</p> <p>ECE/TRANS/WP.15/AC.1/2008/20 - (Sweden) Flame arrester requirements</p> <p>Informal document INF.11 – (Secretariat) Consolidated list of amendments adopted by the Joint Meeting</p>

Background

As early as in 1997 certain provisions for flame protection of tanks were introduced in ADR. In 2007, requirements for prevention of immediate passage of flames into tanks carrying goods in Class 3 were introduced in sub-section 6.8.2.2.3. At the same time transitional measures were introduced in sub-sections 1.6.3.15 and 1.6.4.17 to allow old fixed tanks (tank-vehicles) and tank-containers to be used until the next periodic inspection.

1.6.3.15 Fixed tanks (tank-vehicles) and demountable tanks constructed before 1 July 2007 in accordance with the requirements in force up to 31 December 2006 but which do not, however, conform to the requirements of 6.8.2.2.3 applicable as from 1 January 2007 may continue to be used until the next periodic inspection.

1.6.4.17 Tank-containers constructed before 1 July 2007 in accordance with the requirements in force up to 31 December 2006 but which do not conform to the requirements of 6.8.2.2.3 applicable as from 1 January 2007 may continue to be used until the next periodic inspection.

Note: At the September session 2004, the Working Group on Tanks proposed to introduce the following transitional period in ADR 2007:

“Tanks constructed before 1 July 2007 in accordance with the requirements in force up to 31 December 2006 and which do not conform to the requirements of 6.8.2.2.3 concerning flame-arresters may still be used up to 31 December 2010.”

At the RID/ADR/ADN-Joint Meeting in September 2008, Sweden transmitted document 2008/20 in which we asked for the Joint Meetings opinion on how to fulfil the requirements in sub-section 6.8.2.2.3 concerning vacuum valves and its purpose to prevent the immediate passage of flames into a tank. The outcome of this meeting is reflected in the Report of the working group on tanks and stated in an addendum to the Report (paragraphs 16-18, ECE/TRANS/WP.15/AC.1/112/Add.1) of the Joint Meeting. The text is reproduced below:

- 16. Regarding the positioning of the flame arresters, it was noted that only alternative (b), cited in paragraph 11 of document ECE/TRANS/WP.15/AC.1/2008/20, met the requirements of RID/ADR.*
- 17. In that context, the following was noted:*
 - (a) For (non-explosion-pressure proof) tanks intended for the transport of class 3 substances, the immediate passage of flame into the tank through the tank openings should be prevented by a suitable flame trap;*
 - (b) For multicompartment tanks, each compartment should be protected separately;*
 - (c) The protection device, with a suitable flame trap, should be positioned as close as possible to the shell or the shell compartment.*
- 18. Those points could be incorporated directly into the regulations as prevention objectives.*

This interpretation was later reflected in document 2009/10 from Germany, who raised this matter at the Joint-Meeting in September 2009. In their document Germany proposed a new text for sub-section 6.8.2.2.3 (see Annex to ECE/TRANS/WP.15/AC.1/116/Add.1) which was adopted by the Joint-Meeting. The abstract from the report reads as follows:

Amend the second paragraph of sub-section 6.8.2.2.3 of RID/ADR to read as follows:

"Vacuum valves (RID: and self-operating ventilation valves) and venting systems (see 6.8.2.2.6) used on tanks intended for the carriage of substances meeting the flash-point criteria of Class 3, shall prevent the immediate passage of flame into the tank by means of a suitable device to prevent the propagation of a flame, or the shell of the tank shall be capable of withstanding, without leakage, an explosion resulting from the passage of the flame."

Insert the following new last paragraph:

"If the protection consists of a suitable flame trap or flame arrester, it shall be positioned as close as possible to the shell or the shell compartment. For multi-compartment tanks, each compartment shall be protected separately."

The Joint Meeting also decided to introduce the following new transitional measures: (see ECE/TRANS/WP.15/AC.1/116/Add.1)

1.6.3.39 *Tank-wagons / Fixed tanks (tank-vehicles) and demountable tanks constructed before 1 January 2011 in accordance with the requirements of 6.8.2.2.3 in force up to 31 December 2010 but which do not, however, conform to the requirements of 6.8.2.2.3, second paragraph, concerning the position of the flame trap or flame arrester may still be used.*

1.6.4.37 *Tank-containers constructed before 1 January 2011 in accordance with the requirements of 6.8.2.2.3 in force up to 31 December 2010 but which do not, however, conform to the requirements of 6.8.2.2.3, second paragraph, concerning the position of the flame trap or flame arrester may still be used.*

Problems encountered

1. The current transitional measures in sub-sections 1.6.3.15 and 1.6.4.17 states that tanks/tank-containers constructed before 1 July 2007 according to ADR 2005 may continue to be used until the next periodic inspection. Then they must conform to sub-section 6.8.2.2.3 in ADR 2007. Stating, as in the proposed transitional measures, that the provisions concerning the position of flame traps or flame arresters are not valid for old tanks sends the wrong message from a safety point of view and a risk to damage the trustworthiness of the regulations.

2. Sweden believes that the proposed transitional measures are not in line with the Joint-Meetings interpretation in September 2008 stated in paragraphs 17 and 18, reproduced above. However, we can see a problem since venting systems are proposed to be introduced in the provisions. Although flame traps or flame arresters are included into the venting system this could be a reason for a transitional period. We also have full understanding for those countries which have discovered problems with the positioning of flame traps and flame arresters due to the interpretation at the Joint meeting in September 2008.

3. Since ADR 2007 entered into force, there must have been several tanks/tank-containers which have been rebuilt to fulfil the provisions in sub-section 6.8.2.2.3 due to the current transitional provisions in sub-sections 1.6.3.15 and 1.6.4.17 in ADR 2007 and ADR 2009. Suddenly these investments, costing up to 600 Euro for a total rebuilding of a tank compartment, turns out to have been unnecessary if the proposed transitional measures are adopted.

4. Only tanks constructed before 1 January 2011 in accordance with ADR 2009 is referred to in the proposed transitional measures. Sweden believes this time limit is too short. Normally, the time limit should have been 1 July 2011, if measures to allow manufacturing companies to adapt new provisions had been proposed.

Proposal

Amend the decision of the Joint Meeting, stated in ECE/TRANS/WP.15/AC.1/116/Add.1, as follows:
(amendments in bold text or stricken out)

1.6.3.39 *Tank-wagons / Fixed tanks (tank-vehicles) and demountable tanks constructed before 1 ~~January~~ **July 2011** in accordance with the requirements of 6.8.2.2.3 in force up to 31 December 2010 but which do not, however, conform to the requirements of 6.8.2.2.3, ~~second~~ **third** paragraph, concerning the position of the flame trap or flame arrester may ~~still continue to be used until~~ **[the next periodic inspection]** **[2015]**.*

1.6.4.37 *Tank-containers constructed before 1 ~~January~~ **July 2011** in accordance with the requirements of 6.8.2.2.3 in force up to 31 December 2010 but which do not, however, conform to the requirements of 6.8.2.2.3, ~~second~~ **third** paragraph, concerning the position of the flame trap or flame arrester may ~~still continue to be used until~~ **[the next periodic inspection]** **[2015]**.*

Justification

New provisions for venting systems and the position of flame traps and flame arrestors will be introduced in ADR 2011. Therefore, transitional measures are necessary.

Safety implications

None.

Feasibility

This proposal does not result in any problems for implementation nor other negative consequences.
