

**Economic and Social Council**Distr.: General  
26 June 2013

Original: English

**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**

Geneva, 17-27 September 2013

Item 2 of the provisional agenda

**Tanks****Additive devices on tanks****Transmitted by European Conference of Fuel Distributors (ECFD)<sup>1, 2</sup>***Summary*

<b>Executive summary:</b>	To ensure a safe operation of petroleum tanks fitted with additive devices, these elements of the discharge devices of the tank equipment shall be in conformity with minimum safety requirements.
<b>Related documents:</b>	ECE/TRANS/WP.15/AC.1/2010/14 – OTIF/RID/RC/2010/14; ECE/TRANS/WP.15/AC.1/2010/39 – OTIF/RID/RC/2010/39 + informal document INF.10 of the RID/ADR/ADN Joint Meeting in Geneva, 13 - 17 September 2010; ECE/TRANS/WP.15/AC.1/2011/3 – OTIF/RID/RC/2011/3; ECE/TRANS/WP.15/AC.1/2011/31 – OTIF/RID/RC/2011/31; informal document INF.22 of the RID/ADR/ADN Joint Meeting in Bern, 19 - 23 March 2012; ECE/TRANS/WP.15/AC.1/126 – OTIF/RID/RC/2012-A, paragraph 64 + ECE/TRANS/WP.15/AC.1/126/Add.1 – OTIF/RID/RC/2012-A/Add.1, paragraphs 30 and 31; informal document INF.9 of the 92 <sup>nd</sup> session of WP.15 (Geneva, 8 - 10 May 2012);

<sup>1</sup> In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106, ECE/TRANS/2010/8, programme activity 02.7 (c)).

<sup>2</sup> Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2013/39.

ECE/TRANS/WP.15/2012/13;  
ECE/TRANS/WP.15/2012/18;  
informal document INF.15 of the 93<sup>rd</sup> session of WP.15 (Geneva, 6 – 8 Nov. 2012);  
ECE/TRANS/WP.15/217, paragraph 29;  
ECE/TRANS/WP.15/AC.1/2013/11 – OTIF/RID/RC/2013/11.

1. As delegations have not so far transmitted any further written comments on additive devices for tanks via the secretariat to the tank working group following the request by WP.15, and as ECFD has been asked to continue its work in order to support the tank working group with the necessary information (ECE/TRANS/WP.15/217, paragraph 29), on 28 January 2013 ECFD carried out a consultation in Brussels. This consultation was led by Johan Mattart (Managing Director of the Belgian Federation of petroleum suppliers and secretary of ECFD). The consultation included representatives of the Belgian Ministry of Transport (Federal Public Service Mobility and Transport), the French (FF3C) and German member associations (UNITI), and the heads of the informal working groups on additive devices, Dirk Arne Kuhrt (Berlin, 18 May 2011) and Michael Bogaert (Bonn, 9-10 February 2012).
2. During this consultation, the wording of the recommendation for the inclusion of additive devices on tanks in the regulations was once again checked (ECE/TRANS/WP.15/2012/13) and consideration of the recommendations for changes to document ECE/TRANS/WP.15/2012/18, as well as to informal document INF.15 of the 93<sup>rd</sup> session of WP.15 in Geneva on 6-8 November 2012, was supported.
3. In addition, the following changes to the wording were discussed:
  - An open-ended transitional provision for existing additive devices on tanks is necessary, because these facilities are already widely used. Regarding the testing guidelines, it was discussed which individual rules are to be observed. Given the fact that the devices already in use are not designed to be tested under pressure (e.g. cubic receptacles) it is necessary to exempt those from pressure testing. In the context of periodic and exceptional testing, it is therefore proposed to require only a visual inspection of obvious damage, insofar as it is directly visible.
  - Classification of additives as dangerous goods: after consultation with the manufacturers of additives it can again be confirmed that UN numbers 1202, 1993 and 3082 may be used for the classification of possible additives. With regard to UN number 1993 however, packing group II may be dispensed with, because there are only additives that are assigned to UN 1993, packing group III.
  - Another point of discussion was the maximum permissible quantity of additives carried in the containers of additive devices: this quantity must be limited to the value determined as the maximum quantity of dangerous goods that can be transported in a tank and must be additivated. For this purpose, 120 litres of additive are sufficient. As the possibility of using various types of additives may depend upon the consignee's/customer's wishes, these different types are to be kept in separate additive containers. A realistic option in this context is to carry up to four types of additives. In this case, the additives would be kept in four containers, each a maximum of 120 litres capacity. As a rule, however, smaller quantities are sufficient, so the 400 litres mentioned in the previous wording of the draft specification as the maximum quantity of additive that can be carried is sufficient and does not need to be changed.

- Since the 2011 edition of ADR came into force, drivers of dangerous goods vehicles have been able to take a limited basic course and advanced tank course that are limited to specific products (e.g. liquid fuels of UN 1202, 1203, 1223, 3475 and aviation fuel). In such a case, it may be that the driver has completed the training for the dangerous goods transported in the tank, but not formally for the additive, if it is assigned to a different class or UN number. Given the small amount of additive that must be transported in comparison to the dangerous goods, a driver that has undertaken limited training may be exempted from the obligation of training for the additive. Otherwise, this driver would have to undertake further training for the additive, which would be almost the same as his previous training for the dangerous goods to be transported in the tank. Such expense is not justified. Therefore, there is no need for this training.

4. Considering these aspects, amendments are proposed in paragraphs 5 to 9 below:
5. Amend the end of paragraph (a) of the definition of "Service equipment" in 1.2.1 to read:

"... heating, heat insulating and additive devices and measuring instruments;"

6. Add the following new transitional provision in 1.6.3:

**"1.6.3.x** Fixed tanks (tank-vehicles) and demountable tanks intended for the carriage of UN Nos. 1202, 1203, 1223, 3475 and aviation fuel classified under UN Nos. 1268 or 1863, equipped with additive devices designed and constructed before 1 July 2015 but which do not conform to the requirements of special provision XYZ applicable as from 1 January 2015, may continue to be used. However, the testing, marking, labelling and placarding and transport document requirements shall be met, although in the context of the periodic and exceptional tests, only a visual inspection of the additive devices shall be carried out, in which signs of obvious damage shall be checked, insofar as such damage is directly visible."

7. Add "XYZ" in column (6) of Table A of Chapter 3.2 for UN Nos. 1202, 1203, 1223, 1268, 1863 and 3475.

8. Add a new special provision XYZ to section 3.3.1 as follows:

**"XYZ** When substances under this entry are carried in fixed tanks (tank-vehicles) or demountable tanks, additive devices may be used for the admixture of additives to those substances.

When other substances are carried, the following provisions apply as appropriate. However, the admixture by use of the additive device is not allowed.

Additive devices:

- are part of the service equipment for dispensing additives of UN 1202, UN 1993 packing group III, UN 3082 or non-dangerous goods during discharge of the tank,
- consist of elements such as connecting pipes, valves, pumps and dosing devices which are permanently connected to the emptying device of the tank's service equipment,
- include means of containment which are:
  - an integral part of the shell, or
  - permanently fixed to the exterior of the tank or tank-vehicle.

Alternatively, additive devices may have connectors for connecting removable packagings. In this latter case, the removable packaging itself is not considered part of the additive device.

Additive devices shall meet the following requirements depending on their configuration:

- (a) Construction requirements for the means of containment of an additive device:
- (i) As an integral part of the shell, they shall meet the relevant provisions of Chapter 6.8.
  - (ii) When permanently fixed to the exterior of the tank or to the tank-vehicle, they are not subject to the construction provisions of ADR provided they comply with the following provisions:

They shall be made of a metallic material and comply with the following minimum wall thickness requirements:

<i>Material</i>	<i>Minimum wall thickness</i>
Austenitic stainless steels	2.5 mm
Austenitic-ferritic stainless steels	3 mm
Other steels	3 mm
Aluminium alloys	4 mm
Pure aluminium of 99.80%	6 mm

Welding seams shall be carried out in accordance with 6.8.2.1.23. The test pressure of the means of containment shall be at least 0.3 bar.

- (iii) Removable packagings are not considered to be a means of containment as part of the additive device. Removable packagings which are connectable to the additive device shall be metal packagings and meet the relevant construction requirements of Chapter 6.1, as applicable for the concerned additive.
- (b) Additional requirements for the use of means of containment and additive devices
- (i) In case of (a) (i) above, no additional requirements.
  - (ii) In case of (a) (ii) above, the total capacity of the means of containment shall not exceed 400 litres per vehicle.
  - (iii) In case of (a) (iii) above, paragraphs 7.5.7.5 and 8.3.3 shall not apply. The removable packagings may only be connected to the additive device during discharge of the tank. During carriage, the closures and connectors shall be closed so as to be leaktight and the additive packaging shall be carried as a package.
- (c) Testing requirements for additive devices
- The provisions of 6.8.2.4 shall apply to the additive device. However, in case of (a) (ii) above, at the moment of the initial, intermediate or periodic inspection of the tank, the means of containment of the additive device shall be subject to a leakproofness test at a test pressure of at least 0.3 bar.

**NOTE:** For the removable packagings described in (a) (iii) above, the relevant provisions of 1.4.3.1.1 and Chapters 4.1 and 6.1 are applicable.

- (d) Additive devices shall be marked and labelled on one external side, in accordance with 5.2.1 and 5.2.2. It shall not be necessary to affix such markings and labels if the markings and labels under 5.3 affixed to the tank or the tank-vehicle bear a hazard identification number and a UN number for a substance presenting the same hazard, or a substance more dangerous than the additive, i.e. a substance with a flash point equal to or lower than that of the additive.

---

**NOTE:** For the removable packagings described in (a) (iii) above, the relevant provisions of 5.2.1 and 5.2.2 are applicable.

(e) Transport document requirements

The general information in the transport document for the dangerous goods carried as additives may be limited to the information required in accordance with 5.4.1.1.1 (a) to (d) and (k). The following shall also be entered in the transport document: "Special Provision XYZ".

(f) Training of the vehicle crew requirements

The carried additives do not require separate training of the vehicle crew in accordance with Chapter 8.2.

(g) Additional tank and vehicle approval requirements

Additive devices shall be included in the type approval of the tank in accordance with 6.8.2.3.

**NOTE:** For tanks equipped or intended to be equipped with additive devices where the additive device is not included in the original type approval of the tank, see 6.8.2.3.4.

Section 11 of the ADR certificate of approval in accordance with Chapter 9.1 shall include a reference to the additive device."

9. The existing NOTE under the heading of Chapter 6.8 becomes NOTE 1. Add a new NOTE 2 as follows:

**"NOTE 2:** For fixed tanks (tank-vehicles) and demountable tanks with additive devices, see special provision XYZ."