

## 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

14 September 2017

Geneva, 19–29 September 2017

Item 2 of the provisional agenda

Tanks

### Transitional measures for the use of tanks with a shell constructed of aluminium with a protective lining for substances with a pH value less than 5.0 and more than 8.0

Transmitted by the Government of Belgium

#### Summary

<b>Executive summary:</b>	As tanks with an aluminium alloy shell, for substances with a pH value less than 5.0 and more than 8.0, could still be manufactured and relined up till 1-7-2019 ,the adopted transitional measures are too short.
<b>Related documents :</b>	ECE/TRANS/WP.15/AC.1/2015/51 ECE/TRANS/WP.15/AC.1/2016/31 Informal document INF.38 (September 2016 session), proposal 7, 8 and 9
<b>Action to be taken:</b>	Extend the transitional measures 1.6.3.48 and 1.6.4.50

#### Introduction

Based on the document ECE/TRANS/WP.15/AC.1/2016/31 and Informal document INF.38 (september 2016 session), the following texts were adopted for RID/ADR 2019 :

4.3.5 Add the following new special provision:

*“TU42 Tanks with a shell constructed of aluminium alloy, including those with a protective lining, shall only be used if the pH value of the substance is not less than 5.0 and not more than 8.0”.*

This TU is assigned to UN Nos. 1755 PG II and PG III, 1778 PG II, 1779 PG II, 1788 PG II and PG III, 1789 PG II and PG III, 1791 PGII and PG III, 1803 PG II, 1805 PG III, 1814 PG II and PG III, 1819 PG II and PG III, 1824 PG II and PG III, 1830 PG II, 1832 PG II, 1840 PG III, 1906 PG II, 2031 PG II, 2581 PG III, 2582 PG III, 2586 PG III, 2693 PG III, 2796 PG II, 3264 PG II and PG III

(Reference document: Informal document INF.38, proposal 8 and 9)

6.8.2.4.2 and 6.8.2.4.3 Add the following new paragraph at the end:

*“Protective linings shall be visually examined for defects. In case defects appear the condition of the lining shall be evaluated by appropriate test(s).”*

*(Reference document: Informal document INF.38, proposal 12)*

*“1.6.3.48 Tank wagons / Fixed tanks (tank vehicles) and demountable tanks with a shell constructed of aluminium alloy(including those with protective lining), constructed before 1 July 2019, used for the carriage of substances which do not conform to the requirements of special provision TU42 of 4.3.5 applicable from 1 January 2019 may continue to be used for the carriage of these substances until 31 December 2022.”<sup>1</sup>*

*(Reference document: Informal document INF.38, proposal 7)*

*“1.6.4.50 Tank-containers with a shell constructed of aluminium alloy, including those with a protective lining, constructed before 1 July 2019, used for the carriage of substances which do not conform to the requirements of special provision TU42 of 4.3.5 applicable from 1 January 2019 may continue to be used for the carriage of these substances until 31 December 2022.”<sup>2</sup>*

*(Reference document: Informal document INF.38, proposal 7)*

This transitional measure is in line with the first proposal made in the working group, however, it was even recognized within that meeting that this was not adequate :

See ECE/TRANS/WP.15/AC.1/2016/31 ANNEX table :

***After the meeting it was remarked that the transitional period may be too short because up till 1-7-2019 tanks with an aluminium alloy shell with a lining may still be manufactured.***

Additionally the report of the working group stated the following:

*It was said that the latest tank with an aluminium alloy shell was produced 8 years ago. Considering a safe time of use of 15 years, and 3 years to go between 2016 and 2019 would then justify a transitional period of 4 years until 1 January 2023.*

**This information comes from one source and is not verified.** Additionally, it has not been mentioned in any report or document on this topic that **a common practice in transport industry is to reline tanks**. After a certain period, the lining can be damaged or have been reduced in thickness to an extent which renders it unreliable. In such a case the lining is removed and a new lining is applied within the same tank. This operation is cost intensive but still less cost intensive compared to replacing the tank as a whole. **Also aluminium alloy tanks are relined and continue to be relined today.** Only in 2019 regulations will come into effect banning the further use of these tanks for corrosive substances, **whereas considerable investments have been made to continue to use these tanks safely and will continue to be made until 2019**

As 15 years is considered as a safe time of use, the transitional measure should continue until 31 December 2033.

---

<sup>1</sup> *Note by the Secretariat:* The following wording is suggested: “Notwithstanding the requirements of special provision TU42 of 4.3.5 applicable from 1 January 2019, tank wagons / fixed tanks (tank vehicles) and demountable tanks with a shell constructed of aluminium alloy, including those with a protective lining, which were used before 1 January 2019 for the carriage of substances with a pH value less than 5.0 or more than 8.0, may continue to be used for the carriage of such substances until 31 December 2022.

<sup>2</sup> *Note by the Secretariat:* The following wording is suggested: “Notwithstanding the requirements of special provision TU42 of 4.3.5 applicable from 1 January 2019, tank-containers with a shell constructed of aluminium alloy, including those with a protective lining, which were used before 1 January 2019 for the carriage of substances with a pH value less than 5.0 or more than 8.0, may continue to be used for the carriage of such substances until 31 December 2022.

However, because the new TU 42 was adopted in 2016, the transitional measure could be possibly shortened to 31 December 2030.

## **Proposal**

### **Modify the transitional measure 1.6.3.48 to read:**

Notwithstanding the requirements of special provision TU42 of 4.3.5 applicable from 1 January 2019, tank wagons / fixed tanks (tank vehicles) and demountable tanks with a shell constructed of aluminium alloy, including those with a protective lining, which were used before 1 January 2019 for the carriage of substances with a pH value less than 5.0 or more than 8.0, may continue to be used for the carriage of such substances until **[31 December 2033 /31 December 2030]**

### **Modify the transitional measure 1.6.4.50 to read:**

Notwithstanding the requirements of special provision TU42 of 4.3.5 applicable from 1 January 2019, tank-containers with a shell constructed of aluminium alloy, including those with a protective lining, which were used before 1 January 2019 for the carriage of substances with a pH value less than 5.0 or more than 8.0, may continue to be used for the carriage of such substances until **[31 December 2033 /31 December 2030]**

## **Justification**

If we consider that aluminum alloy tanks are still manufactured or relined today (or at least until 2016), the transitional measure has to be extend to 31 December 2033 (or at least 31 December 2030).

Indeed in document ECE/TRANS/WP.15/AC.1/2016/31, 15 years is considered as a safe time of use.

We also notice that the use of portable tank shells constructed of aluminium alloy is still authorised for such substances, which is the proof that there is no critical safety problem.

In addition, the safety has increased in comparison with the former situation thanks to the new paragraphs in 6.8.2.4.2 and 6.8.2.4.3.

---