

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

Bern, 8-11 September 2009 and
Geneva, 14-18 September 2009
Item 5 of the provisional agenda

TANKS

Limitation of tank volumes

Transmitted by the Government of Sweden

SUMMARY

Executive summary: With this document Sweden would like to have the view of the Joint-meeting concerning tank volume limitation.

Action to be taken: Discussion

Related documents: -

Background

In 2005 a tank vehicle was involved in a severe accident in Sweden. After a collision with some passenger cars the tank vehicle landed between two bridges. The tank shell was punctured at several places when crashing into the bridges, see picture below.



The tank was loaded with 42 600 kg flammable liquid of class 3 in one tank compartment and all of it run out during 15 minutes and provide the fire that have started. The total tank volume capacity in this specific tank vehicle was 56 600 litres in just one big compartment. One consequence of the accident was that the driver of the tank vehicle was killed. This was of course the worst consequence but on top of this the two bridges were destroyed because of the extensive fire and also an environmentally damage was caused by the amount of fluid that run out of the tank.

Introduction

Sweden believes that the consequences of such an accident, as shortly described above, could have been reduced if the tank had been divided into smaller compartments. We are aware of the fact that we in Sweden allow longer vehicles than in most ADR countries; however, the risk with unlimited tank volumes applies to all tanks.

ADR and RID states that tanks (shells) for the carriage of substances in the liquid state or liquefied gases, which are not divided by partitions or surge-plates into sections of not more than 7 500 litres capacity, shall be filled within restrictions of volume due to

churning of the liquid which could cause undesired effect on the vehicle. These restrictions apply to tank-containers, tank swap bodies and MEGCs for road and rail carriage. For road carriage these restrictions also apply to fixed tanks, demountable tanks and battery-vehicles. RID has not similar requirements for tank-wagons, demountable tanks and battery-wagons. Portable tanks and MEGCs are also excluded from the restrictions for both road or rail transport.

However, for all these different containments described above there are no limitations of the tank volume.

The intent of this paper is not to present a specific proposal but rather to invite the Joint Meeting to discuss the following issues:

- (a) **Limitation for tank volume:** Would it be reasonable to limit the volume for a transport compartment?, if yes,
- (b) **Maximum volume:** Would it be acceptable to set the maximum volume for a transport compartment to, for example, 7,5 or 15 m³.
- (c) **Type of tanks:** Should all type of tanks (MEGCs, fixed tanks, Portable tanks etc) be involved. To rebuild existing tanks with compartments will be too expensive, therefore a limitation of a tank compartment should only apply to new tanks,
- (d) **Materials for shells:** Should all kind of materials for shells be involved?
- (e) **Classes:** Should all classes of dangerous goods be involved?

However, Sweden understands that if provisions are to be included in Chapter 6.7 this issue should be addressed to the UN Sub-Committee on TDG.
