

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, 23-27 March 2009
Item 2 of the provisional agenda

TANKS

Flame arrester requirements

Transmitted by the Government of Germany

| Summary | |
|------------------------------|--|
| <i>Explanatory Summary</i> | With this proposal, flame arrester requirements in form of protection targets are to be included in the regulations. |
| <i>Decision to be taken:</i> | Amendment of paragraph 6.8.2.2.3 RID/ADR |
| <i>Related documents:</i> | OTIF/RID/RC/2008-B/Add.1 or ECE/TRANS/WP.15/AC.1/112/Add. 1 (report by the Working Group on Tanks) |

Introduction

At the last session of the Joint Meeting in September 2008, the Working Group on Tanks discussed document OTIF/RID/RC/2008/20 or ECE/TRANS/WP.15/AC.1/2008/20 (Sweden) concerning flame arrester requirements. It was determined that neither chapter 4.3 nor chapter 6.8 of RID/ADR currently defined flame arresters in terms of technical or operational requirements. Therefore, the existing different requirements established by each country are to be harmonized. Besides the technical requirements for flame arresters which remain to be defined, the Working Group on Tanks has defined protection targets concerning the positioning of flame arresters. With this document, the protection targets on flame arresters adopted by the Joint Meeting are to be included in the regulations.

Moreover, for tanks equipped with a venting system according to 6.8.2.2.6 RID/ADR, fitted with a flame arrester (code „F“), it should be examined if reference can be made to the standard ISO EN 16852 or EN 12874 concerning the performance requirements for those tanks.

Proposal

The second subparagraph of 6.8.2.2.3 RID/ADR should be worded as follows:

“Vacuum valves (RID: and self-operating ventilation valves) **and venting systems (cf. paragraph 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 flame arrester**, or the shell of the tank shall be capable of withstanding, without leakage, an explosion resulting from the passage of the flame.

The protection device, with a suitable flame arrester, should be positioned as close as possible to the shell or the shell compartment. For multicompartment tanks, each compartment shall be protected separately.”

Justification

| | |
|---------------------|---|
| Safety: | Improve safety by defining uniform protection targets. |
| Feasibility | For new tanks, the flame arresters can be positioned in a uniform way in accordance with the protection targets. For tanks which are already in operation, transitional provisions have to be envisioned. |
| Actual application: | The amendments will be monitored within the framework of the tank approval procedure. In some countries, flame arresters are already used in practice in this way. |
