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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, 15-19 September 2008
Item 2 of the provisional agenda

TANKS ^{*/ **/}

Flame arrester requirements

Transmitted by the Government of Sweden

Introduction

1. Tanks assigned to the letter “F” in part four of the tank code, e.g. LGBF, must be equipped with a venting system, according to 6.8.2.2.6, fitted with a flame arrester, or must be explosion-pressure proof. These requirements are described in 4.3.4.1.1.
2. However, neither Chapter 4.3, nor Chapter 6.8, actually defines the flame arrester in terms of technical or operational requirements. Neither do RID/ADR describe the positioning of flame arresters on tanks.

^{*/} In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.7 (c)).

^{**/} Circulated by the Intergovernmental Organization for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2008/20.

3. Questions have been raised in Sweden on these requirements and it seems that different requirements apply in different countries. The approval and inspection processes of such tanks may therefore also differ substantially between different contracting parties.

4. This is of course not a desirable situation. In our view such requirements must be harmonized.

5. The Government of Sweden would therefore like to ask the Working Group on Tanks to discuss and clarify the technical and operational requirements on flame arresters, as well as their positioning on tanks.

Technical and operational requirements

6. The RID/ADR does not specify any technical or operational requirements on flame arresters. This situation leads to the application of different technical requirements in different contracting parties and to different approval processes, where tanks are approved in one country but not in another. Such technical or operational requirements should therefore be harmonized and expressed within the scope and provisions of RID/ADR.

7. In relation to this, the standard EN 12874 contains performance requirements, test methods and limits for use. In what respect is this standard or other methods of assessments used by other contracting parties?

8. On the basis of the discussions, the Government of Sweden would like to ask the Working Group on Tanks to express a harmonized level on the technical and operational requirements of flame arresters, to be introduced in Chapter 6.8.

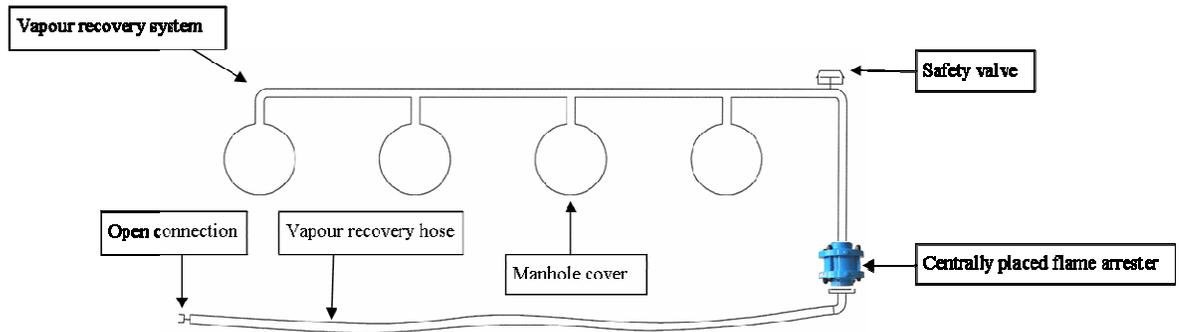
Positioning of flame arresters on tanks

9. The positioning of flame arresters on tanks is not clearly defined in Chapter 6.8. Should each vacuum-relief device and spring-loaded safety valve be fitted with flame arresters? In the case of tanks consisting of multiple compartments, should each compartment be fitted with a flame arrester?

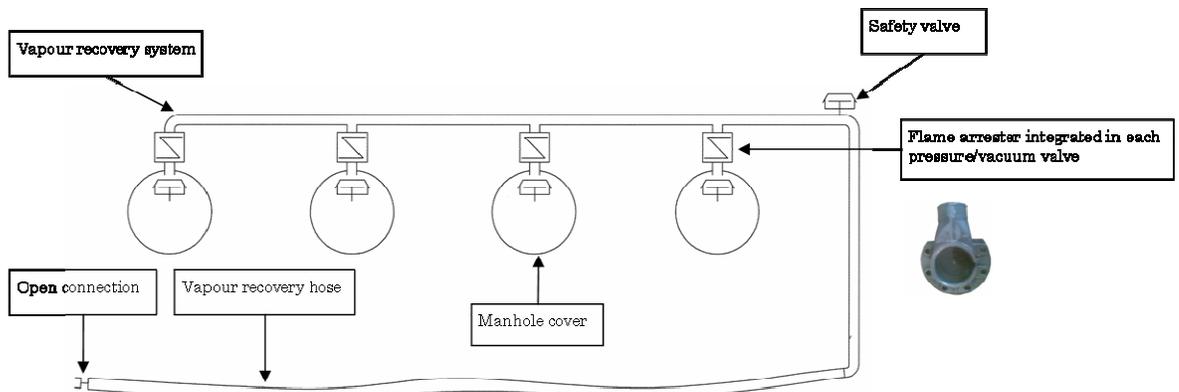
10. This is also questions which according to our experience, are interpreted and dealt with in different ways in the contracting parties.

11. The Government of Sweden would therefore like to ask the Working Group on Tanks whether the positioning of flame arresters according to alternatives (a), (b) and (c) below, are in line with the provisions of RID/ADR.

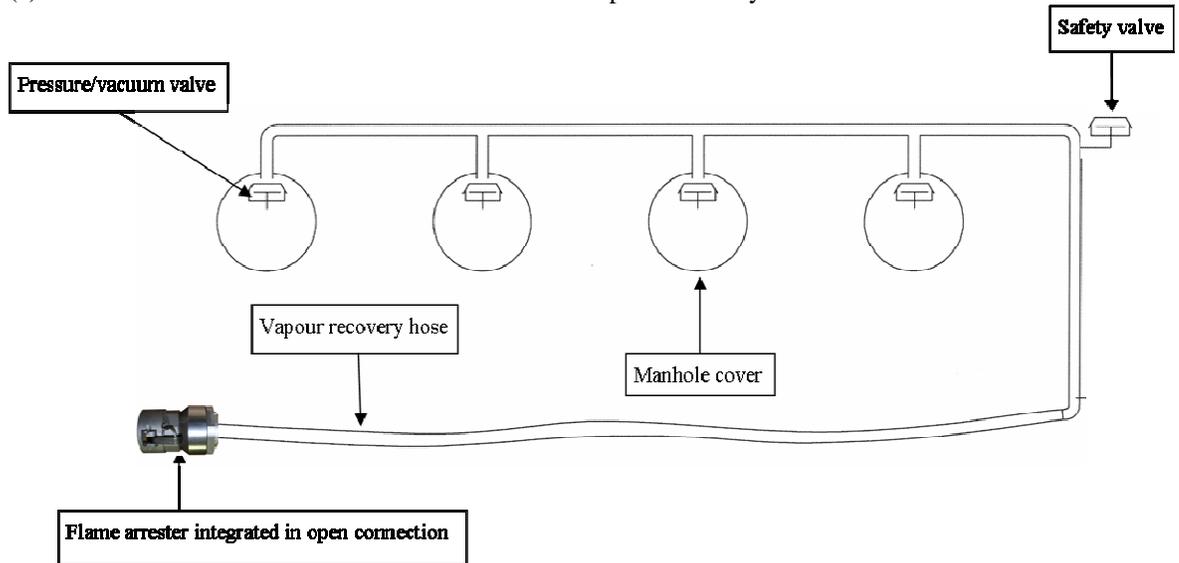
(a) Flame arrester fitted in the end of the vapour recovery system



(b) Flame arrester integrated in each pressure/vacuum valve of the tank compartments



(c) Flame arrester fitted in the end of the vapour recovery hose



12. On the basis of the discussions, the Government of Sweden would also like to ask the Working Group on Tanks if the current provisions of RID/ADR relating to the positioning of flame arresters, are sufficient or should they be expressed in more detail.
