

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

Joint Meeting of the RID Safety Committee and the Working Party on the Transport of Dangerous Goods
(Bonn, 13 – 17 October 2003)

Chapter 6.8.4 – Special provisions

Transmitted by the Government of the Netherlands

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| Executive summary: | The intention of this proposal is to add a special provision to chapter 6.8 and introduce this special provision to column (13) of Table A of Chapter 3.2 for UN 3256 and UN 3257, to remove some obstacles for the approval of certain specialised tank-vehicles which carry bitumen at an elevated temperatures and are used to spray the contents of the tank at road-repair sites. |
| Action to be taken: | Add a special provision in Chapter 6.8.4 |
| Relevant documents: | - |

Introduction:

Bitumen which is solid at 50 °C, but carried in a liquid state at elevated temperature, is frequently used in road construction.

Specialised tank vehicles are used to spray a layer of this bitumen on road surfaces for repair purposes. The tanks are filled at a central distribution point and driven over public roads to the work sites. These specialised vehicles carry up to 20.000 litres liquid bitumen at elevated temperatures and present a danger equal to “normal” tank vehicles which carry bitumen from one location to another.

The tank code for UN3256 and UN 3257 is LGAV. The “A” in the third position indicates that an external stop valve and a closing device (plug, blind flange or equivalent device) at the end of the discharge pipe are required. The spray bar, which is the end of the discharge pipe, contains numerous small spray-nozzles for which it is not practical to be equipped with individual closing devices.

With the equipment in the normal configuration the tank vehicle does, however, not fulfil the requirements of the letter A in the tank code and cannot be approved.

In order to compensate for the absence of the closing device, an additional valve can be fitted between the external stop valve and the spray bar.

Proposal:

1) Introduce a new special provision TE XX to 6.8.4, as follows:

TE XX If tanks, intended for the carriage and handling of bitumen, are equipped with a spray bar at the end of the discharge pipe, the closing device as required by 6.8.2.2.2, may be replaced by a shut off valve, situated in the discharge pipe and preceding the spray bar.

2) Introduce the special provision TEXX in column (13) of Table A in 3.2 against the entries of UN 3256 and UN 3257.

Justification:

Up to 1997 bitumen at elevated temperatures was not regarded as a dangerous substance. Vehicles with spray bars in this configuration have been in use long before that date and no reports of problems or failures are known concerning these specialised tank vehicles. Lately, applications for approval for new tank vehicles are submitted because the users start to renew their fleet of tank vehicles in view of the end date of transitional measure 1.6.3.13. Attention should be drawn to the difference between asphalt and bitumen: stones or aggregate asphalt mixture is excluded from ADR by special provision 643 of Chapter 3.3.

One may question whether these special vehicles should be subject to the requirements of ADR, because of their nature as mobile machinery, rather than transport equipment. However, considering that these vehicles carry a substantial amount (up to 20.000 litres) of liquefied substance at high temperature over public roads at normal transport conditions, the risks are equivalent to those tank vehicles carrying the same substance (approximately 35.000 litres) and which have to comply fully with the requirements of ADR. Also considering that these special tank vehicles could comply after only a small amendment of ADR, the decision to make them subject to ADR approval would be justifiable.

Where normally the use of the final closing device is considered to be an extra safety barrier in case of failure of the preceding valve, in this particular case this function could also be taken over by the natural clogging of the nozzles when the bitumen cools down. In practice the extra shut off valve is already part of the discharge system of these tank vehicles.

Safety: The proposal pursues an equivalent level of safety.

Feasibility: Already in use on tank vehicles in accordance with transitional measure 1.6.3.13.

Enforceability: no problems.

Economic aspects: no problems.
