

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

(Resumed seventy-ninth session, agenda item 5,  
Geneva, 7-11 November 2005 and 26-27 January 2006)

**SAFETY IN ROAD TUNNELS**

**Transmitted by the Government of Italy**

**Foreword**

Italy appreciates the interest of UNECE on safety on road tunnel, since this is a serious problem that affects our country more than the other European countries.

In fact, in Italy there are about 5000 road tunnels, 220 of which exceed 500 meters of length . In almost cases passing through a tunnel constitutes the only choice to reach certain destinations

Our concern is that restrictions on transport of dangerous goods in tunnels will shift transport on roads not designed to support it. Tunnels are mainly built to by-pass mountain roads or local traffic in city centres; long heavy vehicles on small mountain roads or in little town centre could increase risks connected to the transport with possible environmental implications. Therefore, it seems important to specify that risk connected to transport of dangerous goods in tunnel shall be compared to that connected on detour route. Tunnel classification process, based on risk analysis, shall be directly influenced by risk and inconvenience of transport on some alternative route.

**Discussion inside WP15**

1) With reference to the discussion that took place at the last meeting (7-11 November 2005) of WP15, Italy confirms its position previously expressed that the matter of applying restrictions to the passage of vehicles carrying dangerous goods through road tunnels needs more discussion.

Very relevant points yet need, in the view of this delegation, to be clarified.

2) In paragraph 1.9.5.1.1 of the proposed text in TRANS/WP.15/185/Add.1 it is stated:

*.....the competent authority shall assign the road tunnel to one of the tunnel categories defined in 1.9.5.2.2 depending on the tunnel characteristics, risk assessment and traffic management considerations. The same tunnel may be assigned to more than one tunnel category, e.g. depending on the hours of the day, or the day of the week etc.*

In our opinion such a text is very general from one side and incomplete from the other one. The criteria for assigning tunnel categories are indeed:

- tunnel characteristics (which ones ? length ? dimension ? ventilation ? fire-fighting equipments ?)
- traffic management considerations (which ones ? number of vehicles per day ? speed limits ? convoys ?)
- risk assessment (which can cover everything).

On the other side no clear mention is made of other relevant factors such as:

- availability of practical and safe alternative routes
- consideration of the necessity for providing essential goods (gasoil, gasoline, petroleum products, which constitute up to 80% of the road transport of dangerous goods, need to be transported everywhere).

With regard to the second paragraph (assignment of more than one tunnel category) we appreciate the flexibility offered by that provision, but once again we are questioning if such a provision is really useful, being very general (e.g. the assignment of an escort has to be considered ?) and quite complicate in terms both of management and of information to the carrier.

3) Some delegations were requesting not to allow exemption for dangerous goods transported in limited quantities.

We understand their position insofar as they are referring to existing regulations for specific tunnels. However we think that it would be more appropriate to discuss in general terms the problem of limited quantities (for instance, considering a limitation of the total mass per vehicle). Moreover the existing specific regulations (which are relevant also for our country, e.g. Frejus tunnel) are not always based on a detailed risk assessment.

4) With regard to the different dangerous goods restricted in the different tunnel categories, we would like to reconsider some of them, taking care, from one side, of the necessity of a simple system, which need to be easily understandable and manageable by carrier and driver, and, on the other side, of the necessity of evaluating the practical implication.

5) We want to reiterate the fact that the Italian orography is very peculiar: we have thousands and thousands of road tunnels and in many locations it is quite impossible to carry dangerous goods without going trough a road tunnel. We then need a considerable time to study the impact of the proposal we are discussing.

**6) For all the above reasons Italy propose not to adopt amendments to be inserted in the 2007 edition of ADR.**

If this proposal is not accepted, Italy requests to insert a transitional period of 10 years.

Otherwise, Italy will not be in the position to fully implement the new requirements (i.e. to assign tunnel categories to the Italian road tunnels).

7) However, we are ready to continue the work for considering amendments that can cope with our remarks and we propose to start discussing the items mentioned in point 2 of this document.

In this respect the following amendments are proposed in order to clarify in the body of chapter 1.9 that classification process shall be based on a comparative risk analysis with detour route.

Paragraph 1.9.5.1.1 and 1.9.5.2.1, to be amended as follows:

“1.9.5.1.1 When applying restrictions to the passage of vehicles carrying dangerous goods through tunnels, the competent authority shall assign the road tunnel to one of the tunnel categories defined in 1.9.5.2.2  
Dangerous goods transport shall be forbidden in the tunnel only if it is possible to define a detour route, and if it is less hazardous.  
Category of the tunnel shall be defined by a compared risk evaluation of transport of dangerous goods in the tunnel and on detour route, if any.

#### 1.9.5.2 **Categorisation**

1.9.5.2.1 The categorization shall be based on the assumption that there are three major dangers which may cause numerous victims and possibly serious damages:

- a) Explosions;
- b) Release of toxic gas or volatile toxic liquid;
- c) Fires.”

#### **Entry into force (Transitional provisions)**

The large number of tunnels existing in the Italian territory will imply a very complex and expensive analysis of possible alternative routes on the National road network

This task is to be performed by means of a joint cooperation between dangerous goods authority and the authorities (both national and local) responsible for the road network management.

In this respect, the work which is being carried out by WP 15 would deserve an in depth consideration by the different national authorities so that it is strongly recommended not to adopt in ADR 2007 the proposed text. This would allow a better consultation at national level and give to the competent organisations responsible for road infrastructure management to be duly consulted and to take part in the activities of WP15 .

Therefore, Italy suggests to defer the adoption of the tunnel safety provisions to a further ADR edition .

INF.31  
page 4

In this respect the following transitional provisions should be inserted in chapter 1.6:

“1.6.7. Tunnels

The provisions of section 1.9.5 will apply as from [1<sup>st</sup> January 2015]”.

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