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INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

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agenda item 6

SAFETY IN ROAD TUNNELS **Transmitted by the Government of France**

Comments on document TRANS/WP.15/2004/17 presented by the secretariat

France supports the general view of the document TRANS/WP.15/2004/17 presented by the secretariat with the aim of implementing the system of dangerous goods groupings recommended in the OECD/AIPCR study and of promoting a minimum degree of harmonization with regard to tunnel regulations in the framework of Chapter 1.9 of ADR.

French comments on the proposal submitted to the W.P. 15 are listed below :

1. Modification of § 1.9.5 – Road Signs and Signals

1°) Justification

For the prescriptions regarding Road Signs and Signals, the agreement ADR should not change the legal situation of Contracting Parties in respect of the Vienna Convention on Road Signs and Signals, particularly when a Contracting Party uses road signs and signals slightly different from those prescribed by the Vienna Convention.

Therefore the text of paragraph 1.9.5 should be modified in the same way as the Annex III “Signing for tunnels” of the proposal for a Directive on minimum safety requirements for tunnels in the trans-European road network, as amended on 26 February 2004 by the European Commission:

“Annex III - Signing for tunnels

1. General Requirements

The following are road signs and symbols to be used for tunnels. Road signs mentioned in this section are described in the Vienna Convention on Road Signs and Signals of 1968, unless otherwise specified.

In order to facilitate international understanding of signs, the system of signs and signals prescribed in this Annex is based on the use of shapes, and colours characteristic of each class of signs and wherever possible, on the use of graphic symbols rather than inscriptions. Where Member States consider it necessary to modify the signs and symbols prescribed, the modifications made shall not alter their essential characteristics. Where Member States do not apply the Vienna Convention, the prescribed signs and symbols may be modified, provided that the modifications made shall not alter their essential intent.”

2°) Proposal

Modify the beginning of paragraph 1.9.5 as follows:

“1.9.5 When applying traffic restrictions in accordance with 1.9.3 (a) or (b), Contracting Parties shall indicate such restrictions by means of signs and signals. Road signs and signals are described in the Convention on Road Signs and Signals (Vienna, 1968) and the European Agreement supplementing the Convention on Road Signs and Signals (Geneva, 1971) as interpreted by the Resolution on Road Signs and Signals (R.E.2) of the UNECE Inland Transport Committee’s Principal Working Party on Road Transport, as amended *. (See also Chapter 8.6).
In order to facilitate international understanding of signs, the system of signs and signals prescribed in the Vienna Convention is based on the use of shapes, and colours characteristic of each class of signs and wherever possible, on the use of graphic symbols rather than inscriptions. Where Contracting Parties consider it necessary to modify the signs and symbols prescribed, the modifications made shall not alter their essential characteristics. Where Contracting Parties do not apply the Vienna Convention, the prescribed signs and symbols may be modified, provided that the modifications made shall not alter their essential intent.

2. Modification of § 1.9.5 – Specific operating measures designed to reduce the risks

1°) Justification

The proposed redaction of 1.9.5 could be understood as prohibiting any additional operating measures to reduce the risks, such as declaration before entering or passage in convoys escorted by accompanying vehicles.

Such specific operating measures are explicitly referred to:

- by the recommendation 1.07 (e) of the group on safety in road tunnels, in their report TRANS/AC.7/9 on 10 December 2001 :
“it is recommended (...) to consider operating measures for reducing the risks involved in the transport of dangerous goods in tunnels (declaration before entering, escort, etc.) on a case-by-case basis. Regulation may require the formation of convoys and accompanying vehicles for the transport of certain types of particularly dangerous goods; however, these measures are also dependant on sufficient space being available in front or in advance of the tunnel as well as available operational means.”
- by point 3.7 of Annex I of the proposal for a Directive on minimum safety requirements for tunnels in the trans-European road network, as amended on 26 February 2004 by the European Commission:
“- consider specific operating measures designed to reduce the risks and related to all or parts of the vehicles transporting dangerous goods in tunnels, such as declaration before entering or passage in convoys escorted by accompanying vehicles, on a case by case basis further to the aforementioned risk analysis.”

In the case of some particularly dangerous goods, when the standard risk analysis based on the QRA Model recommended by OECD/AIPCR would lead to prohibition of the traffic of those dangerous goods through the tunnel, such additional specific operating measures may reduce the risks so that those dangerous goods can be allowed under conditions.

2°) Proposal

Modify the paragraph 1.9.5 as follows:

“1.9.5 *[When applying traffic restrictions in accordance with 1.9.3 (a) or (b), Contracting Parties shall indicate such restrictions by means of signs and signals in accordance with the Convention on Road Signs and Signals*

*(Vienna, 1968) and the European Agreement supplementing the Convention on Road Signs and Signals (Geneva, 1971) as interpreted by the Resolution on Road Signs and Signals (R.E.2) of the UNECE Inland Transport Committee's Principal Working Party on Road Transport, as amended *. (See also Chapter 8.6).]*¹

In addition to the above mentioned restrictions, Contracting Parties may apply specific operating measures designed to reduce the risks and related to all or parts of the vehicles using certain structures such as bridges or tunnels, or vehicles using combined transport modes, such as declaration before entering or passage in convoys escorted by accompanying vehicles.

Such restrictions or operating measures shall ~~also~~ be published officially and made publicly available.”

3. Add a new § 1.9.8 – Specific restrictions for tunnels where a declaration before entry is requested or a systematic check is carried out before entering the tunnel

1°) Justification

France shares the view that, in most cases (when the vehicles do not stop before entering the tunnel), restrictions can practically be applied only to vehicles carrying dangerous goods for which orange-coloured plates according to section 5.3.2 of ADR are required on the vehicles.

But, in the case of some tunnels, when a declaration of vehicles is requested before entry or when a systematic check of vehicles carrying dangerous goods is carried out, it is possible to enforce specific tunnel regulations.

As an example, the regulation on the traffic through the Mont-Blanc Tunnel, between France and Italy, prohibits some categories of vehicles carrying dangerous goods for which the orange-coloured plates are not required on the vehicles by ADR. France has no intention to change these present additional restrictions that were decided for safety reasons.

For obvious practical reasons, a systematic declaration or check of vehicles could not be applied to a large numbers of tunnels. In reality, only a few structures meet the conditions described in the proposed 1.9.8. That is why this proposal does not run counter the efforts for harmonization.

2°) Proposal

Add a new paragraph 1.9.8 as follows:

“1.9.8 Notwithstanding paragraphs 1.9.5 and 1.9.7, Contracting Parties may lay down specific restrictions concerning vehicles using certain structures such as bridges or tunnels or vehicles using combined transport modes, where a specific checking or declaration system prior to accessing the structures makes it possible.

Such safety requirements or restrictions shall be published officially and made publicly available.”

¹ See comment 1 on the first indent of paragraph 1.9.5.

4. **Major danger in relation with radioactive materials of Class 7 – Modification of the definition of the grouping “C” of dangerous goods (§ 2.4.2, § 2.4.4 and Table A)**

1°) Justification

In addition to the three major dangers mentioned in § 2.4.2 [i.e. (a) explosions, (b) release of toxic gas or volatile toxic liquid and (c) fires], the classification of dangerous goods in relation with the passage through road tunnels shall take into account the risks arising from a fire involving vehicles carrying some radioactive materials of Class 7.

The non fissile radioactive content of packages of type B(U), B(M) and C (UN 2916, UN 2917, UN 3323) could lead, due to its high activity level, to major contamination and irradiation in case of a fire in a tunnel. There is indeed a high risk that packages would not stand the particularly severe conditions occurring in case of a big fire in a tunnel, as it happened in the Mont-Blanc Tunnel or in the Gotthard Tunnel. We face the same concern about a criticality risk if packages containing fissile materials are damaged in a severe tunnel fire.

Therefore France developed three new accidental scenarios implying radioactive materials in addition to the scenarios of fire, explosion or release of toxic gas or volatile toxic liquid used by the OECD/AIPCR QRA Model, so that the risks linked with radioactive materials can be taken into account in a modified QRA Model, helping the competent authorities to lay down appropriate restrictions. The definition of Grouping C should be modified in order to include a greater amount of radioactive materials of Class 7, as proposed below:

2°) Proposal – modification of § 2.4.2, § 2.4.4 and Table A

§ 2.4.2 Modify the definition of Grouping C as follows :

“Grouping C: Dangerous goods which may lead to a large explosion or a large toxic release or a large irradiation and contamination but not to a very large explosion;”

§ 2.4.4 In the definition of Grouping C, replace “Class 7: UN 2977 and UN 2978.” by :

“Class 7: UN 2977, UN 2978, UN 2916, UN 2917, UN 3323, UN 3324, UN 3325, UN 3326, UN 3327, UN 3328, UN 3329, UN 3330, UN 3331 and UN 3333”

Table A, Column (15),

Replace : “Class 7 UN 2977 and UN 2978 (C)”

By : “Class 7 UN Nos 2977, 2978, UN 2916, UN 2917, UN 3323, UN 3324, UN 3325, UN 3326, UN 3327, UN 3328, UN 3329, UN 3330, UN 3331 and UN 3333 (C)”

5. **§ 8.6.1.4 – Proposed interpretation of Road Sign C, 3n “no entry for vehicles carrying more than a certain quantity of substances liable to cause water pollution”**

1°) Justification

Various dangerous goods are liable to cause water pollution in case of a loss of product. We suggest to clarify the proposed interpretation for the road sign C, 3n by making reference to

the classification of the ADR. All substances considered as dangerous goods by ADR should be regarded as “liable to cause water pollution” except substances and articles belonging to Class 1 and gases of Class 2.

2°) Proposed interpretation for road sign C, 3n

[This sign should be used to prohibit the entry of vehicles defined in article 1(a) of ADR carrying dangerous goods ~~classified as pollutants to the aquatic environment~~ according to ADR provided that orange-coloured plates on the vehicle according to the provisions of 5.3.2 of Annex B of ADR concerning marking are required for the carriage of such goods, except when the only dangerous goods on board the vehicles belong to Class 1 or to Class 2.].
