

# **Economic and Social Council**

Distr.: General 19 August 2024 English

Original: French

### **Economic Commission for Europe**

**Inland Transport Committee** 

**Working Party on the Transport of Dangerous Goods** 

116th session

Geneva, 5–8 November 2024 Item 8 of the provisional agenda **Any other business** 

# Carriage of goods in transport category 4 and goods without restriction code in tunnels

Transmitted by the Government of Switzerland\*

Summary

**Executive summary:** The rules governing the carriage of category 4 goods and goods

with no restriction code through tunnels contain inconsistencies

that are not justified from the viewpoint of safety.

Action to be taken: Identify the extent to which implementation of tunnel

restrictions differs from one country to another. Determine whether those discrepancies are problematic. If necessary, modify ADR requirements to ensure harmonized

implementation and eliminate inconsistencies.

**Related documents:** ECE/TRANS/WP.15/2022/6; ECE/TRANS/WP.15/260,

paras. 31–33; ECE/TRANS/WP.15/2020/10; ECE/TRANS/WP.15/251, paras. 35 and 36.



<sup>\*</sup> A/78/6 (Sect. 20), table 20.5.

#### I. Introduction

- 1. Since 1 January 2010, ADR Contracting Parties have been implementing restrictions on the passage of vehicles through road tunnels, based on 1.9.5 and 8.6 of ADR. These provisions are supplemented by national restrictions, including tunnel categorization and any additional safety measures, notified to the ECE secretariat under 1.9.5.3.7.
- 2. Since the provisions were introduced in ADR 2007, the wording of the texts has been improved and inconsistencies have been removed. However, two issues have not been fully resolved: the passage through road tunnels of goods in transport category 4 (restriction code (E)) and goods with no restriction code (-).
- 3. The discussions on these two topics have led to detailed explanations in the meeting reports. In only one case has an interpretation been published on the ECE website.<sup>1</sup>
- 4. Switzerland believes that the outcome of these discussions is unsatisfactory for several reasons:
- (a) The observations and arguments put forward by some delegations did not always find agreement from other delegations;
  - (b) The interpretations have not led to any amendments to the ADR regulations;
- (c) The discussions focused more on application in compliance with existing provisions, and less on the logic of the requirements in terms of transport safety.

As a result, there are likely to be differences in the way restrictions on passage through tunnels are implemented in the different Contracting Parties.

5. Switzerland proposes that, in the light of experience gained since the introduction of these provisions, the Working Party on the Transport of Dangerous Goods should reconsider these issues. The aim is to identify the extent to which current practices diverge, to determine whether these divergences are problematic and, if so, to introduce amendments to ADR to ensure the harmonized implementation of the requirements.

### II. Transport category 4 goods

#### A. Discussion

- 6. Dangerous goods in transport category 4 are less dangerous than those in categories 1 to 3. They can thus be transported in unlimited quantities under the exemptions in 1.1.3.6. In that case, certain requirements do not apply. In particular, it is not necessary to attach orange-coloured plates or placards to the transport unit, one fire extinguisher is sufficient (instead of two), and the driver is not required to have a driver training certificate.
- 7. The dangerous goods concerned are listed in the annex to the document. They are assigned tunnel restriction code (E), with the exception of the four entries in class 7. Under 8.6.4, code (E) means that the goods cannot pass through tunnels of category E. The assignment of code (E) therefore suggests that the passage of those goods through certain tunnels presents an unacceptable risk.
- 8. However, it is possible to transport these goods in category E tunnels using the exemption in 1.1.3.6 applicable to the carriage of packages. In this case, code (E) is unnecessary. It has to be taken into account only when goods are transported in limited quantities exceeding 8 tonnes or in bulk.
- 9. These observations have already been presented by Türkiye in document ECE/TRANS/WP.15/2022/6, but the proposal to replace code (E) by (-) when it was unnecessary was not adopted, on the grounds that the code was justified on the basis of the

<sup>1</sup> See: https://unece.org/transport/dangerous-goods/adr-interpretation-list#accordion\_7.

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dangers associated with the carriage of such goods outside of the exemption regime under 1.1.3.6 (ECE/TRANS/WP.15/260, paragraph 32).

10. Switzerland would like the Working Party to examine this last statement from the point of view of safety. The exemptions under 1.1.3.6 authorize the carriage of goods in categories 1 to 3 in small quantities, and that of goods in category 4 in large quantities. For example, a load of several tonnes of fireworks with classification code 1.4S carried under the 1.1.3.6 regime, without orange-coloured plate marking and without a driver's certificate, is authorized to pass through category E tunnels. Passage of the same load transported outside the 1.1.3.6 regime, which would be safer because it would comply with all requirements of ADR, would not be permitted.

#### **B.** Questions

- 11. Switzerland invites the Contracting Parties to answer the following questions:
- (a) Is the carriage of transport category 4 goods through category E tunnels, meeting all ADR requirements (e.g. orange-coloured plate marking, driver's certificate), authorized in your country?
- (b) Do you consider the risk of transporting a large quantity of category 4 goods through a tunnel under the 1.1.3.6 regime to be acceptable? Do you think that the risk depends on the type of goods?
- (c) Do you think that maximum quantities should be imposed for the passage of category 4 goods under the 1.1.3.6 regime through tunnels of category E?
- (d) What is the safety justification for maintaining code (E) for category 4 goods that can only be transported in packages and cannot be transported in limited quantities?

#### III. Goods with no restriction code

#### A. Discussion

- 12. Under 1.9.5.2.2 and 8.6.3.1, dangerous goods are not subject to any tunnel passage restrictions when "(-)" is indicated instead of a tunnel code. The goods concerned are listed in the annex to the document.
- 13. These provisions are based on the assumption that the danger posed by passage through tunnels is negligible. There are therefore cases where transport units fitted with orange-coloured plate markings are authorized to pass through tunnels of category E.
- 14. In 2020, Switzerland presented a situation in which UN Nos. 3077 or 3082 goods were loaded in a transport unit together with other goods, and the value calculated in accordance with 1.1.3.6.4 was exceeded due to UN Nos. 3077 and 3082 (transport category 3) being taken into account. Switzerland is of the view that there was no justification from a safety point of view to prohibit the passage of such loads through tunnels if the value calculated only on the basis of the other dangerous goods remained below 1000. In Alpine regions, it is actually safer for the environment to route UN 3077 or 3082 substances through a tunnel, rather than requiring them to be routed along longer, winding, alternative roads.
- 15. However, the proposal put forward by Switzerland in document ECE/TRANS/WP.15/2020/10 did not meet with support and needed to be revised (ECE/TRANS/WP.15/251, paras. 35 and 36).

#### **B.** Questions

16. Switzerland invites the Contracting Parties to answer the following questions:

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- (a) Do you authorize the passage through tunnels of goods with no restriction code (marked "(-)") loaded together with other goods, when the value calculated according to 1.1.3.6.4 is exceeded solely because of the goods with no restriction code?
- (b) If not, would you agree to an amendment to ADR to explicitly authorize such shipments?

### IV. Next steps

- 17. On the basis of the responses and any specific examples, the Working Party may wish to agree to amend certain provisions of ADR in order to remove inconsistencies that are not justified from a safety point of view, and to formalize certain existing practices.
- 18. This will help to harmonize the implementation of ADR and reduce misunderstandings between economic players and the authorities in charge of carrying out highway checks related to the inconsistency of requirements.
- 19. Harmonized safety requirements for the transport of dangerous goods in tunnels enhance road safety and thus contribute to United Nations Sustainable Development Goal 3, on good health and well-being (Ensure healthy lives and promote well-being for all at all ages). Removing restrictions on passage through tunnels that are not based on safety grounds will ensure efficiency throughout supply chains, thus contributing to Goal 8, on decent work and economic growth (Promote inclusive and sustainable economic growth, employment and decent work for all).

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# Annex

### List of goods in transport category 4 carried only in packages

Class	Classification	Type of goods	UN Nos.	Limited quantities	Tunne l code
1	1.4S	Fireworks, detonators, charges without detonator, signals, extinguishing devices	0044, 0070, 0105, 0110, 0131, 0173, 0174, 0193, 0323, 0337, 0345, 0349, 0366, 0367, 0368, 0373, 0376, 0384, 0404, 0405, 0432, 0441, 0445, 0454, 0455, 0456, 0460, 0481, 0500, 0506, 0507, 0513, 0514	0	(E)
1	1.4S	Cartridges, cartridge cases	0012, 0014, 0055	5 kg	(E)
2	6A, 6F, 6T	Articles containing dangerous goods.	3537, 3538, 3539	0	(E)
3	F3		3540		
4.1	F4		3541		
4.2	S2, S6		3542		
4.3	W3		3543		
5.1	O3		3544		
5.2	P1, P2		3545		
6.1	T10		3546		
8	C11		3547		
9	M5		3548		
4.1	F1	Rubber scrap	1345	1 kg	(E)
4.1	F1, F4	Matches, firelighters	1331, 1944, 1945, 2254, 2623	5 kg	(E)
7		Radioactive material	2908, 2909, 2910, 2011	0	(-)
9	M5	Extinguishing devices, articles	3268, 3499, 3508, 3559	0	(E)

### List of goods in transport category 4 carried in packages or in bulk

Class	Classification	Type of goods	UN number	Limited quantities	Tunnel code
4.2	S2, S6	Carbon	1361 (III), 1362	0	(E)
9	M11	Discarded packagings	3509	0	(E)

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# List of goods with no tunnel restriction code

Class	Classification	Type of goods	UN number	Limited quantities	Transport category
6.2	I1, I2, I3	Infectious substances, category A	2814, 2900, 3549	0	0
6.2	I4	Biological substances, category B	3373	0	-
6.2	I3	Medical or clinical waste	3291	0	2
7		Radioactive material (special arrangement)	2919, 3331	0	0
7		Radioactive material	2908, 2909, 2910, 2911	0	4
9	M6, M7	Environmentally hazardous substances	3077, 3082	5 kg/5 L	3
9	M11	Vehicles, flammable gas powered or flammable liquid powered or powered by batteries, fumigated transport units	3166, 3171, 3359		-
9	M11	Vehicles powered by lithium ion, lithium metal or sodium ion batteries	3556, 3557, 3558	0	-

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