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#### **Economic Commission for Europe**

**Inland Transport Committee** 

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

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Proposals for amendments to annexes A and B of ADR:

Miscellaneous proposals

# Application of tunnel restrictions for engine and machinery entries of UN Nos. 3528, 3529 and 3530

#### Transmitted by the Government of Switzerland\*

*Summary* 

**Executive summary**: Apply restrictions on passage through tunnels to machinery and engines in

UN Nos. 3528, 3529 and 3530 that are required to have a transport

document under special provision 363 (g) (vi)

Action to be taken: In special provision 363 (g) (vi), include the obligation to have orange-

coloured plates in line with 5.3.2 of ADR and assign tunnel restriction codes for UN Nos. 3528, 3529 and 3530 in Chapter 3.2, Table A, column

(15).

**Reference documents:** ECE/TRANS/WP.15/230, ECE/TRANS/WP.15/2016/4,

Informal document INF.8 from the May 2016 session of the Working

Party.

<sup>\*</sup> In accordance with the programme of work of the Inland Transport Committee for 2016-2017 (ECE/TRANS/2016/28/Add.1 (9.2)).







#### Introduction

- 1. Machinery and engines are exempted from regulation by special provision 363 (SP363). At its May 2016 session, the Working Party opted to await the outcome of discussions in the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods on the scope of SP363 before considering whether the entries for UN Nos. 3528, 3529 to 3530 should be subject to tunnel restrictions.
- 2. SP363 applies without quantity limits. Some types of machinery, such as generators, may contain thousands of litres of fuel. Those fuels are subject to restrictions in tunnels when transported under other entries (UN Nos. 1202, 1203, etc.). These new entries for machinery can now be easily identified. Thus, in applying SP363, it would be both possible and reasonable to restrict the passage in tunnels of fuels in amounts similar to those to which they are already subject when carried as a load.
- 3. In respect of placarding, SP363 itself provides thresholds from which placards are mandatory: 1000 l capacity for gaseous fuels and 3000 l content for liquid fuels. A transport document is required for liquid fuel contents and gaseous fuel capacities of over 1000 l. The transport document must contain the following statement "Transport in accordance with special provision 363". It is therefore easy to identify this type of transport from the statement in the transport document and also from the type of marking.
- 4. It should also be noted that the obligation under SP363 (g) (vi) to have a transport document also means that it is mandatory to add a note in the document, in line with 5.4.1.1.1 (k), if the transport is expected to pass through a tunnel subject to restrictions. If no tunnel restriction code is indicated in Table A, column (15), the persons responsible for drawing up the necessary transport document will not know how to meet the requirement of 5.4.1.1.1 (k).
- 5. In order for transport to be subjected to tunnel restrictions, the transport unit must be subject to orange-coloured plate marking, in line with 5.3.2 of ADR. To that end, we propose using the limits given in SP363. Thus, a transport unit carrying machinery that is required to have a transport document is also required to have orange-coloured plate marking, in line with 5.3.2. One simple solution for this would be to amend SP363 by adding wording under SP363 (g) (vi) (proposal 1).
- 6. Although SP363 as shown in ADR originally comes from the Model Regulations, its provisions are not exactly the same as those in the Regulations. For instance, the following differences appear in ADR:
  - (1) For UN Nos. 3528 and 3529, ADR does not require labelling for quantities of fuel greater than 601 and capacities of not more than 4501;
  - (2) For UN No. 3529, ADR does not require labelling for capacities of not more than 450 l;
  - (3) In ADR, a transport document is required for UN Nos. 3528 and 3530 from not 60 l, but 1000 l, of fuel, and for gases of UN No. 3528 for a 1000 l capacity, while the Regulation has no lower limit in this case;
  - (4) In a NOTE to SP363 (a), ADR distinguishes between fuels used in vehicle equipment during carriage and those that are not used during carriage. This distinction does not exist in the Model Regulations.

Given that there are already differences between ADR and the Model Regulations, it does not seem necessary to devise a more complicated solution in order to maintain the integrity of the text of SP363.

- 7. If proposal 1 is adopted, the tunnel restrictions provided for in 1.9.5.3.6 and 8.6.3.1 would apply automatically because the vehicles would have orange-coloured plate marking.
- 8. It remains to be specified in what types of tunnels (B, C, D or E) these restrictions apply. In the regulation, the prohibitions in tunnels are tailored to the tunnel restriction codes in Chapter 3.2, Table A, column (15). If, in the case of machinery fuels, the prohibitions are to be adjusted to the restrictions that are already provided for the same substances in the

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regulations, the tunnel restriction codes applicable to those substances for UN Nos. 3528, 3529 and 3530 would need to be introduced. That is the aim of proposal 2.

- 9. During the May 2016 session, we pointed out that tunnel restrictions differ according to the type of fuel. In document ECE/TRANS/WP.15/2016/4 and informal document INF.8 for that session, we provided explanations to justify the introduction of different tunnel restriction codes. The different codes are related to the types of fuel generally used in the regulations: (D/E) for flammable liquid fuels (UN No. 3528), (B/D) for gases and (D) for hydrogen for UN No. 3468 (UN No. 3529) and (E) for a class 9 fuel (UN No. 3530).
- Since, under SP363 (g) (vi), the possible quantities and capacities can exceed 1000 litres (volume or capacity, as appropriate) and are unlimited, it should be recognized that the danger present is equivalent to that in the case of carriage in tanks. This justifies the application of codes for carriage in tanks given for flammable fuels in Table A ((D/E) and (B/D)). However, these codes are complicated to implement. They were intended for the carriage of containers that are easily identifiable as tanks or as packages. In the case of carriage of packages or tanks as a load, tunnel managers can easily identify the type of container and prohibit or allow passage on the basis of the container and the type of tunnel restriction. In the case of machinery tanks, it is not always possible to identify the type of container in that way, and prohibiting passage is not as simple with double codes ((D/E) or (B/D)). To facilitate such decisions, users should be offered a single option in Table A, column (15). Given the volumes concerned, we propose taking account only of the restriction codes applicable to tanks, i.e.: (D) for flammable liquid fuels in UN No. 3528, (B) for gaseous fuels in UN No. 3529 and (E) for non-flammable liquid fuels in UN No. 3530 (proposal 2). If this proposal is adopted, it will ensure safety in tunnels and will also provide an answer when a transport document under SP363 (g) (vi) has to be completed in accordance with 5.4.1.

### **Proposal 1**

- 11. Modify the text of SP363 (g) (vi) as follows (added text appears in bold and underlined, deleted text is shown in strikethrough):
  - (vi) A transport document in accordance with 5.4.1 and orange-coloured plate marking on the vehicle in accordance with 5.3.2 are is required only when the engine or machinery contains more than 1000 l of liquid fuels, for UN Nos. 3528 and 3530, or has a water capacity of more than 1000 l, for UN No. 3529.

## **Proposal 2**

- 12. For entries under UN Nos. 3528, 3529 and 3530, add the following tunnel restriction codes to Chapter 3.2, Table A, column (15):
- (D) for UN No. 3528;
- (B) for UN No. 3529;
- (E) for UN No. 3530.

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