

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

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Item 5 (b) of the provisional agenda

**Proposals for amendments to annexes A and B of ADR:
miscellaneous proposals**

Comments on 2020/1: Temperature controlled transport

Transmitted by the United Kingdom

Summary

Executive summary: Alternative amendments to Proposals 1 and 2 submitted in 2020/1.

Related documents: ECE/TRANS/WP.15/2020/1

Introduction

ADR 7.1.7.4.7

1. The United Kingdom agrees that there is a need to amend paragraph 7.1.7.4.7, however we consider that the references to containers should be deleted altogether.

2. Part 9 of the ADR is specifically for requirements concerning the construction and approval of vehicles. The provisions of 9.6.1 are for “insulated, refrigerated and mechanically-refrigerated vehicles” and do not cover containers. It is not appropriate to include provisions for the design and construction of multimodal refrigerated containers in ADR-specific text. Any requirements for these containers (such as the heat transfer coefficient and substance used as refrigerant) should be agreed at the appropriate multi-modal meeting and contained within Annex A of the ADR.

ADR 7.1.7.4.5

3. The United Kingdom agrees that provisions (c), (d) and (e) of 7.1.7.4.5 relate to the thermal insulation of the container or vehicle. However, there is an editorial issue with the amendment as proposed in 2020/1. For example, the newly amended sub-section (c) would become: “*Thermal insulation of the transport unit and thermal insulation and single mechanical refrigeration...*” which does not read correctly.

4. We also think it is necessary to be specific that it is the vehicle or container which is thermally insulated, rather than make reference to the transport unit as a whole.

Proposals

5. Two alternative proposals are offered in place of those included in 2020/1 for consideration by the Working Party.

Proposal 1

6. Amend 7.1.7.4.7 as follows:

~~“Where substances are required to be carried in insulated, refrigerated or mechanically refrigerated vehicles or containers, these vehicles or containers~~
Vehicles constructed to carry substances in accordance with methods (c), (d) and (e) of 7.1.7.4.5 shall satisfy the requirements of Chapter 9.6.”

Proposal 2:

7. Amend 7.1.7.4.5 inserting the words “Vehicle or container with” at the start of sub paragraphs (c), (d) and (e):

“Suitable methods for preventing the control temperature being exceeded are, in order of increasing control capability:

- (a) Thermal insulation provided that the initial temperature of the substance(s) to be carried is sufficiently below the control temperature;
- (b) Thermal insulation with coolant system provided that:
 - (i) An adequate quantity of non-flammable coolant (e.g. liquid nitrogen or solid carbon dioxide), allowing a reasonable margin for delay, is carried or a means of replenishment is assured;
 - (ii) Liquid oxygen or air is not used as coolant;
 - (iii) There is a uniform cooling effect even when most of the coolant has been consumed; and
 - (iv) The need to ventilate the transport unit before entering is clearly indicated by a warning on the door(s) of the transport unit;
- (c) **Vehicle or container with t**Thermal insulation and single mechanical refrigeration provided that for substance(s) to be carried with a flash point lower than the sum of the emergency temperature plus 5 °C explosion-proof electrical fittings, EEx IIB T3 are used within the cooling compartment to prevent ignition of flammable vapours from the substances;
- (d) **Vehicle or container with t**Thermal insulation and combined mechanical refrigeration system with coolant system; provided that:
 - (i) The two systems are independent of one another;
 - (ii) The provisions in (b) and (c) are complied with;
- (e) **Vehicle or container with t**Thermal insulation and dual mechanical refrigeration system; provided that:
 - (i) Apart from the integral power supply unit, the two systems are independent of one another;
 - (ii) Each system alone is capable of maintaining adequate temperature control; and
 - (iii) For substance(s) to be carried with a flash point lower than the sum of the emergency temperature plus 5 °C explosion-proof electrical fittings, EEx IIB T3, are used within the cooling compartment to prevent ignition of flammable vapours from the substances.”