

Distr.  
GENERAL

TRANS/WP.29/GRSG/2000/18  
20 July 2000

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for the Harmonization of Vehicle Regulations (WP.29)

Working Party on General Safety Provisions (GRSG)  
(Seventy-ninth session, 16-20 October 2000,  
agenda item 11.2.)

**PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 105**  
(ADR vehicles)

Transmitted by the Expert from the International Organization  
of Motor Vehicle Manufacturers (OICA)

Note: The text reproduced below was prepared by the expert from OICA in order to adapt Regulation No. 105 to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) (TRANS/WP.29/GRSG/57, para. 78). This document supersedes document TRANS/WP.29/GRSG/2000/10.

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Note: This document is distributed to the Experts on General Safety Provisions only.

GE.00-22585

**A. PROPOSAL**

Paragraph 1, amend to read (including also a new footnote 1/):

" ..... categories O2, O3 and O4 1/ intended for the transport of dangerous goods and which are subject to the European Agreement concerning the International Carriage of Dangerous Goods (ADR).

1/ As defined in annex 7 to the Consolidated Resolution of the Construction of Vehicles (R.E.3) (document TRANS/WP.29/78/Rev.1/Amend.2)"

Paragraph 3.2.2., amend the reference to "marginal 22.301" to read "chapter 9.1"

Paragraph 4.4.1., footnote 1/, renumber as footnote 2/, and amend to read:

"2/ 1 for Germany; ..... 33 (vacant); 34 for Bulgaria; 35-36 (vacant); ..... 43 for Japan; 45 for Australia and 46 for Ukraine. Subsequent numbers ....."

Paragraph 4.4.3., amend the reference to "marginal 22.301" to read "chapter 9.1"

Paragraph 5.1., footnote 2/, renumber as footnote 3/.

Paragraph 5.1., the table, amend to read:

"

TECHNICAL SPECIFICATIONS		VEHICLE DESIGNATION (according to chapter 9.1 OF THE ADR)				
		EX/II	EX/III	AT	FL	OX
	<b>Electrical equipment</b>					
5.1.1.2.	Wiring		x	x	x	x
5.1.1.3.	Battery master switch					
5.1.1.3.1.			x		x	
5.1.1.3.2.			x		x	
5.1.1.3.3.					x	
5.1.1.3.4.			x		x	
5.1.1.4.	Batteries	x	x		x	
5.1.1.5.	Permanently energized circuits					
5.1.1.5.1.					x	
5.1.1.5.2.			x			
5.1.1.6.	Electrical installation at the rear of the cab		x		x	
5.1.2.	<b>Prevention of fire risks</b>					
5.1.2.2.	<b>Vehicle cab</b>					

5.1.2.2.1.		x	x			
5.1.2.2.2.						x
5.1.2.3.	Fuel tanks	x	x		x	x
5.1.2.4.	Engine	x	x		x	x
5.1.2.5.	Exhaust system	x	x		x	
5.1.2.6.	Vehicle endurance braking		x	x	x	x
5.1.2.7.	<b>Combustion heaters</b>					
5.1.2.7.1., 2. and 5.		x	x	x	x	x
5.1.2.7.3. and 4.					x	
5.1.2.7.6.		x	x			
5.1.3.	<b>Braking equipment</b>					
5.1.4.	<b>Speed limitation device</b>	x	x	x	x	x
5.1.5.	<b>Coupling devices for trailers</b>	x	x			

Paragraph 5.1.1.2.1., amend to read:

" ..... except for the following:  
- from the battery to the cold start and ..... "

Paragraph 5.1.1.3.1., amend to read:

" ... as close to the battery as practicable."

Paragraph 5.1.1.3.2., amend to read:

"5.1.1.3.2. A control device to facilitate the disconnecting and the reconnecting functions of the switch shall be installed in the driver's cab. It shall be readily accessible to the driver and distinctively marked. It shall be protected against inadvertent operation by either adding a protective cover, by using a dual movement control device, or by other suitable means. Additional control devices may be installed provided they are distinctively marked and protected against inadvertent operation."

Paragraph 5.1.1.3.3., amend to read:

"5.1.1.3.3. The switch shall have a casing with protection degree IP65 in accordance with IEC Standard 529."

Paragraph 5.1.1.3.4., amend to read:

"5.1.1.3.4. The cable connections on the switch shall have protection degree IP54. However, this ..."

Paragraph 5.1.1.5., should be deleted.

Paragraph 5.1.1.6., renumber as paragraph 5.1.1.5., and amend to read (including new footnotes 4/ and 5/):

"5.1.1.5. Permanently energized circuits

5.1.1.5.1. Those parts of the electrical installation, including the leads which shall remain energized when the battery master-switch is open, shall be suitable for use in hazardous areas. Such equipment shall meet the appropriate requirements of IEC 60079 4/, parts 0 and 14 and the additional requirements applicable of IEC parts 1, 2, 5, 6, 7, 11, 15 or 18 5/

For the application of IEC 60079 part 14 5/, the following classification shall be used:

Permanently energized electrical equipment including the leads that are not subject to paragraphs 5.1.1.3. and 5.1.1.4. shall meet the requirements for zone 1 for electrical equipment in general or meet the requirements for zone 2 for electrical equipment situated in the driver's cab. The requirements for explosion group IIC, temperature class T6, shall be met.

4/ The requirements of IEC 60079n part 14 do not take precedence over the requirements of this Regulation.

5/ As an alternative, the general requirements of EN 50014 and the additional requirements of EN 50015, 50016, 50017, 50018, 50019, 50020, or 50028 may be used.

5.1.1.5.2. Bypass connections to the battery master switch for electrical equipment which must remain energized when the battery master switch is open shall be protected against overheating by suitable means, such as a fuse, a circuit breaker or a safety barrier (current limiter)"

Paragraph 5.1.1.7., renumber as paragraph 5.1.1.6., and amend to read:

" ... under normal conditions of use of vehicles and that these risks ....."

Paragraph 5.1.1.7.1., renumber as paragraph 5.1.1.6.1., and amend to read:

" .... located to the rear of the driver's cab ... figures 1, 2, 3 and 4 below. However, the sensor ....."

Paragraphs 5.1.1.7.2. and 5.1.1.7.3., renumber as paragraphs 5.1.1.6.2. and 5.1.1.6.3.

Paragraph 5.1.1.7.4., should be deleted.

Paragraph 5.1.2.1., amend to read:

"5.1.2.1.           General provisions

The following technical ..."

Paragraph 5.1.2.2., amend to read:

" .... cab is made of materials which are not readily flammable, a shield made of .... fitted at the rear of the cab. Any window in the rear of the cab ..."

Paragraph 5.1.2.3.2., amend to read:

" ... or with a closure enabling the opening to be kept ..."

Paragraph 5.1.2.4., amend to read:

" ..... In the case of EX/II and EX/III vehicles the engine shall be of compression-ignition construction."

Paragraph 5.1.2.5., amend to read:

" ....clearance of at least 100 mm or be protected by a thermal shield."

Insert a new paragraph 5.1.2.7.6., to read:

"5.1.2.7.6.           Combustion heaters with gaseous fuels are not permitted."

Paragraph 5.1.3., amend to read:

"5.1.3.               Braking equipment

Vehicles intended for the carriage of dangerous goods shall fulfil all relevant requirements of Regulation No. 13 (including those of annex 5) as amended in accordance with the dates of application specified therein."

Paragraphs 5.1.3.1. and 5.1.3.2., should be deleted.

Paragraph 5.1.4., amend to read:

"5.1.4.               Speed limitation device

Power driven vehicles (rigid vehicles and tractors for semi-trailers) with a maximum mass exceeding 12 tonnes, shall be equipped with a speed limitation device according to the technical requirements of Regulation No. 89 as amended in accordance with the dates of application specified therein. The set speed as defined in paragraph 2.1.2 and specified in

paragraph 4.9.4. of Regulation No. 89 shall not exceed 85 km/h."

Insert a new paragraph 5.1.5., to read:

"5.1.5.            Coupling devices for trailer

Coupling devices for trailers shall comply with the technical requirements of Regulation No. 55 as amended in accordance with the dates of application specified therein."

Insert a new paragraph 10., to read:

"10.                TRANSITIONAL PROVISIONS

- 10.1.              As from the official date of entry into force of the 02 series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approval under this Regulation as amended by the 02 series of amendments.
- 10.2.              As from .... months, after the date of entry into force, Contracting Parties applying this Regulation shall grant ECE approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 02 series of amendments.
- 10.3.              Contracting Parties applying this Regulation shall not refuse to grant extensions of approval to the preceding series of amendments to this Regulation.
- 10.4.              Contracting Parties applying this Regulation shall continue to grant approvals to those types of vehicles which comply with the requirements of this Regulation as amended by the preceding series of amendments during the .... months period which follows the date of entry into force of the 02 series of amendments.
- 10.5.              ECE approvals granted under this Regulation earlier than ... months after the date of entry into force and all extensions of such approvals, including those to a preceding series of amendments of this Regulation granted subsequently, shall remain valid indefinitely. When the vehicle type approved to the preceding series of amendments meets the requirements of this Regulation as amended by the 02 series of amendments, the Contracting Party which granted the approval shall notify the other Contracting Parties applying this Regulation thereof.
- 10.6.              No Contracting Party applying this Regulation shall refuse national type approval of a vehicle type approved to the 02 series of amendments to this Regulation.

- 10.7.           Until ... months after the date of entry into force of the 02 series of amendments to this Regulation, no Contracting Party applying this Regulation shall refuse national type approved of a vehicle type approved to the preceding series of amendments to this Regulation.
- 10.8.           Starting .... months after the entry into force of the 02 series of amendments to this Regulation, Contracting Parties applying this Regulation may refuse first national registration (first entry into service) of a vehicle which does not meet the requirements of the 02 series of amendments to this Regulation."

Paragraph 10. (former), renumber as paragraph 11.

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## **B.       JUSTIFICATION**

The OICA proposals are based on the latest amended "Chapter 9" in the draft restructured ADR, document TRANS/WP.15/159/Add.11, as corrected during the seventy-eighth WP.15 session (TRANS/WP.15/161/Add.1).

The objective is to put the existing technical requirements of Regulation No. 105 in line with the relevant items in the ADR Agreement.

At the same time, Regulation No. 13, which is referred to in Regulation No. 105, will need to be updated in accordance with the amended braking technical requirements agreed by WP.15.

This OICA document can be considered as a revision of document: TRANS/WP.29/GRSG/2000/10 which was established jointly by the WP.15 and WP.29 secretariats and circulated during the seventy-eighth GRSG session.

In addition standardized "Transitional Provisions" are submitted for GRSG's consideration.

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