

**Economic and Social Council**Distr.: General
30 January 2013

Original: English

Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations**Working Party on General Safety Provisions****104th session**

Geneva, 15–19 April 2013

Item 3 of the provisional agenda

Regulation No. 34 (Prevention of fire risks)**Proposal for the 03 series of amendments to Regulation
No. 34 (Prevention of fire risks)****Submitted by the expert from Japan***

The text reproduced below was prepared by the expert from Japan to amend the requirements for fire prevention under certain conditions in the event of a rear collision. This document is based on informal document GRSG-103-07 distributed during the 103rd session of the Working Party on General Safety Provisions (GRSG). The modifications to the existing text of the Regulation are marked in bold characters.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

I. Proposal

Paragraph 1.2., amend to read:

"**1.2.** PART II-1: at the request of the manufacturer, to the approval of vehicles of categories M, N and O approved to Part I or IV of this Regulation fitted with liquid fuel tank(s) with regard to the prevention of fire risks in the event of a frontal and/or lateral collision as well as to the approval of vehicles of categories M₁ and N₁, which are of a total permissible mass exceeding 2.8 tonnes, and categories M₂, M₃, N₂, N₃ and O, fitted with tank(s) for liquid fuel, which have been approved to Part I or IV of this Regulation with regard to the prevention of fire risks in the event of a rear collision.

PART II-2: [Each Contracting Party or regional economic integration organization may request the following provision:]

the approval of vehicles of categories M₁ and N₁, which are of a total permissible mass not exceeding 2.8 tonnes, approved to Part I or IV of this Regulation fitted with liquid fuel tank(s) with regard to the prevention of fire risks in the event of a rear collision."

Paragraph 3.1.4.2., amend to read:

"3.1.4.2. the number of this Regulation, followed by "RI", if the vehicle is approved pursuant to Part I of the Regulation, or by "RII-1" if the vehicle is approved pursuant to Parts I or IV and to Part II-1 of the Regulation, **or by "RII-2" if the vehicle is approved pursuant to Parts I or IV and to Part II-2 of the Regulation**, a dash and the approval number to the right of the circle prescribed in paragraph 3.1.4.1."

Part II, renumber as Part II-1

Paragraph 9.4., amend to read:

"9.4. During and after the impacts described in paragraph 9. above, the battery shall be kept in a position **as specified by the manufacturer.**"

Insert a new Part II-2, to read:

"PART II-2 - APPROVAL OF VEHICLE WITH REGARD TO THE PREVENTION OF FIRE RISKS IN THE EVENT OF REAR COLLISION

9.6. Definitions and test requirements

9.6.1. Paragraphs 7. to 8.2.2. of Part II-1 shall apply.

9.6.2. The vehicle test shall be performed according to the procedures described in Annex 4 of this Regulation.

9.6.3. After the collision test, the performance requirements of paragraphs 9.1. to 9.4. of Part II-1 shall be met."

Insert new paragraphs 17.7 to 17.11., to read:

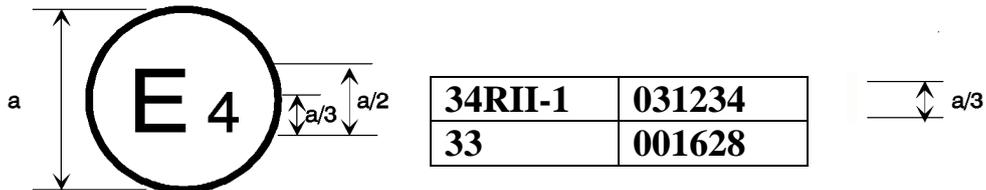
"**17.7. As from the official date of entry into force of the 03 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type approvals under this Regulation as amended by the 03 series of amendments.**

- 17.8. As from [XX] months after the date of entry into force of the 03 series of amendments, Contracting Parties applying this Regulation with respect to Part II shall grant type approvals only if the vehicle type to be approved meets the requirements of Part II of this Regulation as amended by the 03 series of amendments.
- 17.9. Contracting Parties applying this Regulation shall not refuse to grant extensions of type approvals for existing types which have been granted according to the preceding series of amendments to this Regulation.
- 17.10. Even after the date of entry into force of the 03 series of amendments to this Regulation, type approvals for other than Part II to the preceding series of amendments to the Regulation which are not affected by the 03 series of amendments shall remain valid and Contracting Parties applying this Regulation shall continue to accept them.
- 17.11. Notwithstanding the transitional provisions above, Contracting Parties whose application of this Regulation comes into force after the date of entry into force of the most recent series of amendments are not obliged to accept type approvals which were granted in accordance with any of the preceding series of amendments to this Regulation are only obliged to accept type approvals granted in accordance with the 03 series of amendments."

Annex 2, Model B, amend to read:

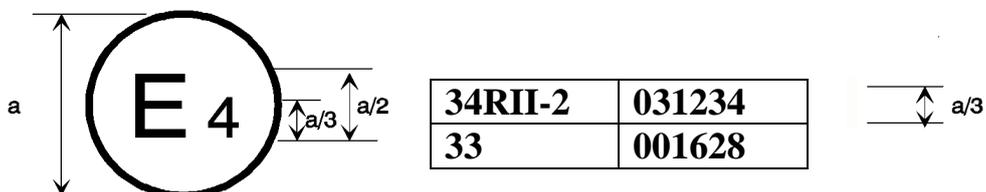
"Model B

(see paragraph 3.1.5. of this Regulation)



A = 8 mm minimum

The above approval mark affixed to a vehicle shows that the type concerned was approved in the Netherlands (E4) pursuant to Regulations Nos. 34 Parts I or IV and II-1 and 33*/. The approval numbers indicated that, at the date when the respective approvals were given, Regulation No. 34 included the 03 series of amendments and Regulation No. 33 was still in its original form.



The above approval mark affixed to a vehicle shows that the type concerned was approved in the Netherlands (E4) pursuant to Regulations Nos. 34 Parts I or IV and II-2 and 33*/. The approval numbers indicated that, at the date when the respective

approvals were given, Regulation No. 34 included the 03 series of amendments and Regulation No. 33 was still in its original form."

Annex 4

Paragraph 2.1., amend to read:

"2.1. Testing ground

The test area shall be large enough to accommodate the impactor (striker) propulsion system and to permit after-collision displacement of the vehicle struck and installation of the test equipment. The part in which vehicle collision and displacement occur shall be horizontal, flat **and uncontaminated, and representative of a normal, dry, uncontaminated road surface.**"

Paragraph 2.2.2., amend to read:

"2.2.2. The impacting surface shall be flat, not less than 2,500 mm wide, and 800 mm high, and its edges shall be rounded to a radius of curvature of between 40 and 50 mm. It shall be clad with a layer of plywood **20 +/- 2 mm thick, in good condition.**"

Paragraph 2.4.2., amend to read:

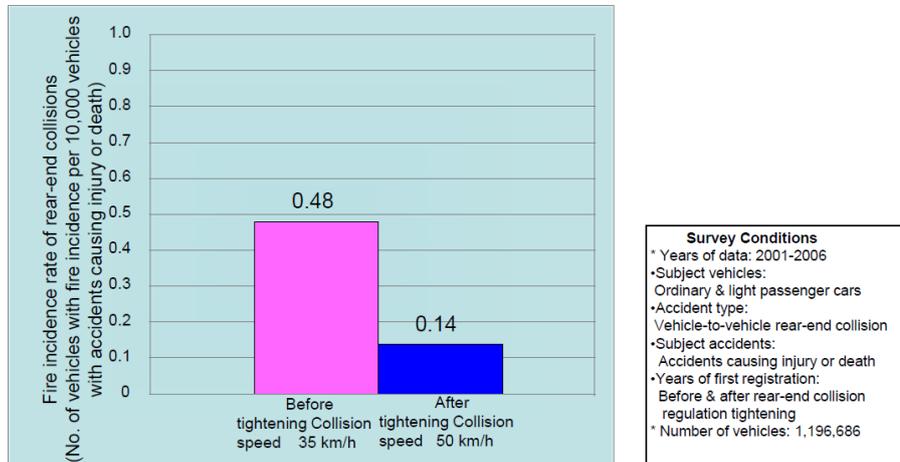
"2.4.2. The velocity of collision shall be between **48 and 52 km/h.**"

II. Justification

1. For the purpose of enhancing safety, Japan proposes to amend certain collision conditions in UN Regulation No. 34 on provisions for fire prevention in the event of a rear-end collision to conform to the conditions that have already been made mandatory in Japan.
2. Japan has established standards for fire prevention in the event of a rear collision mandatory for passenger cars. The collision speed had been 35 km/h in the original standards, but was raised in 1993 to 48 to 52 km/h. The following chart compares the fire incidence rates of rear-end collisions before and after the raising of the collision speed. Since the fire incidence rate in rear-end collisions has been reduced by one-third after the introduction in the legislation of the increased collision speed, Japan proposes that the regulatory measure resulted in an effective safety enhancement of vehicles (see figure below).
3. Japan intends to apply, after the formal adoption of this 03 series of amendments, UN Regulation No. 34, which will be part of Japan's contribution on the development of the International Whole Vehicle Type Approval (IWVTA).
4. Ad paragraph 1.2.: Currently, the rear-end collision fire prevention requirements are voluntary for manufacturers. However, Japan has made them mandatory. For this reason, Japan proposes to allow each Contracting Party to choose such requirements. In addition, it is proposed to divide the scope of Part II to distinguish between the approval to be granted at the request of the manufacturer based on the frontal/lateral collision fire prevention requirements or on the rear-end collision fire prevention requirements for M₂, M₃, N₂, N₃ and O and the approval based on the mandatory rear-collision requirements. Japan believes that it is appropriate to remove the brackets and to keep the sentence for the purpose of promoting the IWVTA.

Fire incidence rate of rear-end collisions (Japan)

After the tightening of the rear-end collision regulation (increased collision speed from 35 km/h to 50 km/h), the fire incidence rate of rear-end collisions has been reduced by about one-third, indicating that the regulatory tightening is effective.



5. Ad paragraph 3.1.4.2. and Annex 2, Model B: Japan proposes to amend the approval number provisions and approval mark models on the basis of the same justifications as that of paragraph 1.2. above.

6. Ad paragraph 9.4.: Japan considers that the purpose of this paragraph is to prevent fires caused by a battery projection at the time of collision. Keeping the battery in position by a securing device is merely one of the ways to prevent it. This paragraph should require the prevention of battery projection, not the method for it. It should allow each manufacturer to choose a method at their discretion.

7. Part II-2: Japan proposes to add the requirements on the approval of vehicles with regard to the prevention of fire risks in the event of rear collision.

8. Ad Annex 4, paragraph 2.1.: Japan proposes to align the road surface conditions of the test area with those specified in UN Regulation No. 95.

9. Ad Annex 4, paragraph 2.2.2.: Japan proposes to make the impacting surface thickness consistent with that specified in UN Regulation No. 12.

10. Ad Annex 4, paragraph 2.4.2.: Japan believes that the rear collision speed specified in Japan's current safety regulations is appropriate, as the accident data indicate that the fire incidence rate of rear-ended vehicles is declining.