

**Suggestion for amendment of UN Regulation No. 107  
(M2 and M3 vehicles)**

Introduction

**I Proposal**

*Annex 3, paragraph 7.5.1.5.1.* amend to read:

"7.5.1.5.1. The alarm system and the fire suppression system, if fitted, shall be automatically activated through a fire detection system. The detection system shall be designed so as to detect a temperature, in the engine compartment, and in each compartment where a combustion heater is located, in excess of the **reference** temperature occurring during normal operation **as declared by the manufacturer.**

**At the time of Type Approval, this temperature of detection shall be verified by the Technical Service, in accordance with the manufacturer's recommendations, with a detection technology different to that of the fire detection system under approval.**

**The fire suppression system may alternatively be activated automatically by other means, as long as it activates the alarm system."**

*Annex 1, part 1, Appendices 1 and 3, Paragraph 4.4 (App. 1) and Paragraph 5 (App.3)*  
amend to read:

Annex 1,  
Part 1,

Appendix 1,  
insert new items 4.4:

**4.4 Reference temperature for the detection system (per paragraph 7.5.1.5.1.)...**

Appendix 3,  
Insert item 5 to read:

**5. Reference temperature for the detection system (per paragraph 7.5.1.5.1.)...**

*Annex 3, insert a new paragraph 7.5.7. and 7.5.7.1, to read:*

- “7.5.7 Fire event  
7.5.7.1 In the case of vehicles of Classes II, III and B, having the engine located to the rear of the driver’s compartment, in the event of activation of an alarm system:
- the emergency lighting system according to paragraph 7.8.3. shall automatically activate and,
  - after a single positive action of the driver on any of the door controls in the driver’s compartment, all power-operated doors situated on the side of the vehicle that is nearer of the side of the road corresponding to the direction of traffic for which the vehicle is designed shall open and shall remain in the opened position.
- This is applicable when the vehicle is stationary or driving at a speed less than or equal to 3 km/h. A repeated use of the opening control shall not reverse the opening movement of the door, in order to avoid unintended re-closing in an emergency. ”

*Annex 3*, insert a new paragraph 7.19 to read:

**“7.19. Safety information:**

**In the case of vehicles of Classes II, III and B, means to transmit safety information, which permit the operator, driver and/or crew to easily inform the passengers of the safety instructions as e.g. the location of the emergency exits, the location of the fire extinguishers, safety sign, shall be specified by the manufacturer in the application for approval.**

**These means shall be adapted to the design and architecture of the vehicle with the aim of making the safety instructions easily accessible and intelligible by any passenger.”**

## **II Justifications**

### Annex 3 § 7.5.1.5.1. : Temperature of detection

- It was agreed during BMFE- 05 to provide a draft proposal for a minimum performance level for fire detection systems.
- In this case the most measurable detection criterion seems to be the temperature.
- The proposed temperature of detection should be a maximum one aiming a reasonable reaction time in case of fire.
- This maximum detection temperature however depends largely on the location where the temperature excess must be detected, the technology of the power train and combustion heater, as well as on the combustion heater compartments. Some sides of an engine compartment can be rather hot and, depending on the 'robustness' of detection conduit material and its assembly, a fire detection temperature of e.g. 170°C could be too low, while in other places the temperature could reach 230° in normal operation.
- This temperature should be declared by the manufacturer since he is the one who best knows the technology and configuration of the vehicle.

- In addition, mandating a too high detection temperature could lead to missing some fire ignitions, while mandating a too low temperature could lead false alarms and loss of credibility by the driver.
- The verification method should be decided following the manufacturer's recommendation since the temperatures to be detected may vary according to the location of detection.
- The proposal also indicates that the Technical Service should verify the threshold via a technology different to that of the fire detection system (e.g. infrared vs. a thermocouple) in order to ensure reliability of the measure.

#### Annex 3 § 7.5.1.6. : Automatic exits opening

OICA was tasked to construct a proposal mandating automatic opening of the power-operated exits in the case of excessive temperature.

The relevant criteria for capturing this new requirement are as follows:

- Position of the engine to the rear of the driver's compartment
- Type of power operating door (see paragraph 7.6.7.2.) : restrict the requirement only to power operated service doors.
- Restrict the requirement only to service doors
- Speed < 3 km/h or vehicle is stationary
- Proper side of the vehicle (according to the direction of traffic)

#### Annex 3 § 7.19 : Safety instructions

The chair, F and the Secretary were tasked to construct a proposal addressing the requirements that are possible to assess at the time of Type Approval with regard to safety information .

The debates at BMFE-04 led to the following table parameters:

<b>If the regulation provides requirements on:</b>	<b>The manufacturer shall provide:</b>	<b>The operator shall:</b>	<b>Comments</b>
The safety card	dedicated space for the cards	provide the card adapted to the use of the vehicle	Design restrictive as it mandates a card. Difficulty to adapt the language to the territory where the vehicle will be operated
The safety instructions in general	general instructions like the location of the emergency exits	adapt the instructions to the occupants and the type of travels.	Technology neutral solution, permitting safety cards, video instructions, signalization, crew instructions, etc. However, difficulty in defining the pass/fail criteria.
The details related to the construction of the vehicle, like	The relevant location for each emergency exit or	adapt the instructions to the interior fitments	Technology neutral. However, difficulty in defining the

<b>If the regulation provides requirements on:</b>	<b>The manufacturer shall provide:</b>	<b>The operator shall:</b>	<b>Comments</b>
the location of the emergency exits or fire extinguishers	fire extinguisher	they order to the manufacturers	pass/fail criteria.

BMFE-04 also stressed that the Provisions must be:

- Technology neutral
- Related to the construction of the vehicle
- Have relevant pass/fail criteria