



# Behaviour of M2 & M3 general construction in case of Fire Event

**IWG - BMFE**

## ●●● IWG BMFE overview

### ⇒ 2 meetings on 2020, 1st semester

- ⇒ Chair : France (UTAC)
- ⇒ Secretary : CLCCR

### ⇒ 8<sup>th</sup> meeting

- ⇒ Initially planed on 2019 december 18th & 19th, postponed to 2020 March 4th & 5th
- ⇒ Venue : Biarritz, Arcangues (Aguila)
- ⇒ 16 attendees : 4 contracting parties / 2 test centers / OICA / CLEPA / CLCCR

### ⇒ 9<sup>th</sup> meeting

- ⇒ June 23rd & 24th
- ⇒ Venue : web session
- ⇒ 20 attendees : 4 contracting parties / 4 test centers / OICA / CLEPA / CLCCR

## ●●● IWG BMFE overview

### ⇒ 2 draft amendment proposals submitted as informal documents

#### ⇒ UNR n°107 including :

- Alarm initiation based on a temperature reference
- Opening of all power-operated doors
- Safety instructions
- Transitional provisions

#### ⇒ UNR n°118 including :

- Influence of adhesive agents
- [Relevancy of toxicity specifications]
- Transitional provisions

# ●●● 8<sup>th</sup> IWG BMFE meeting

## ⇒ UN Regulation No.107 Contents

### ⇒ Minimum performance level for detection systems :

- The draft amendment proposal is fixed and will be submitted to GRSG at the April 2020 session.
- st protocols are still under consideration.

### ⇒ Automatic activation of door openings :

- the group concluded that, as a first step, a centralized means dedicated to the opening of exits in case of fire should be made available to the driver in his compartment.
- Two issues need to be further discussed within the group in the next steps: the possibility to deal with situations wider than fires and the possibility to deal with automatic activation in case of no reaction expected from the driver.

# ●●● 8<sup>th</sup> IWG BMFE meeting

## ⇒ UN Regulation No.107 Contents

### ⇒ Automatic window breakage system:

- Proposal initiated by France to assess the opportunity to replace the current mechanical system (hammer) based on deliberate action by a passenger or by an automatic system.
- An overall safety approach is to be carried out on this proposal based on a risk analysis and a cost/benefit approach to be fed primarily by the industry and France. This point is linked to the previous one, which includes a possible opening to situations broader than fire events.

### ⇒ Preparation of the regulation amendment drafts for the GRSG session in April 2020.

# ●●● 8<sup>th</sup> IWG BMFE meeting

## ⇒ UN Regulation No.118 Contents

### ⇒ Smoke toxicity – Cost-benefit ratio :

- Based on the cost-benefit analysis presented in session, the ratio is less than 1, which is not effective under the assumptions made.
- In order to ensure the robustness of the data, the industry should confirm the figures taken into account in the analysis.
- A further material-by-material study could be added to target specific materials for which the cost-benefit analysis could be greater than 1.

### ⇒ Smoke toxicity – test protocol :

- The BAM study on the definition of an adapted protocol is underway with the performance of tests on different materials.

### ⇒ Preparation of the regulation amendment drafts for the GRSG session in April 2020.

# ●●● 9<sup>th</sup> IWG BMFE meeting

## ⇒ UN Regulation No.107 Contents

### ⇒ Automatic activation of door openings :

- New inputs on BCR evaluation for such system coming from industry
- Discussions on the opportunity to add braking system activation before the automatic door activation
- How is the BCR updated when the driver is added in the loop ?

### ⇒ Automatic window breakage system:

- Updated proposal initiated by France to address electronic breaking devices for emergency windows and escape hatches (in addition to hammer) via an emergency control activation by the driver
- Key question on how to link passengers evacuation and injuries with issues on hammer use in the repertoried events ?

### ➔ **Positions from other GRSG members ?**

# ●●● 9<sup>th</sup> IWG BMFE meeting

## 🚩 UN Regulation No.118 Contents

### 🚩 Smoke toxicity – Cost-benefit ratio :

- Based on the cost-benefit analysis presented in session, the ratio is less than 1, which is not effective under the assumptions made.
- No new input from BMFE experts to confirm the figures taken into account.
- Key question on how to link passengers evacuation and injuries with issues due to smokes toxicity in the repertoried events ?

### ➔ **Positions from other GRSG members ?**

### 🚩 Smoke toxicity – test protocol :

- The BAM study brought new inputs on the relevant testing devices that could be used on adapted protocol for road vehicles.
- New results are expected for the next session including a view on adapted toxicity criteria and base requirements on material already approved under UNR n°118.
- a balance has to be defined between BAM recomandations from a scientist view and BCR/alternative measures to define final efficiency of the regulation amendment.



# ●●● BMFE meeting

## ➤ Next session

- 2 days meeting
- 2020, September 2<sup>nd</sup> – 3<sup>rd</sup>
- Venue : Climate & Environment French Ministry (Paris, France)

# UTAC CERAM



Thanks for your attention.