

Informal document GRSG-118-16

(118th GRSG, 15-17 July 2020, agenda item 2.)



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

8th 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

7 9th 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



• • 8th IWG BMFE meeting

7 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.



• • 8th IWG BMFE meeting

7 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.



• • 8th IWG BMFE meeting

7 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.



• • 9th IWG BMFE meeting

7 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 ?



• • 9th IWG BMFE meeting

7 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.

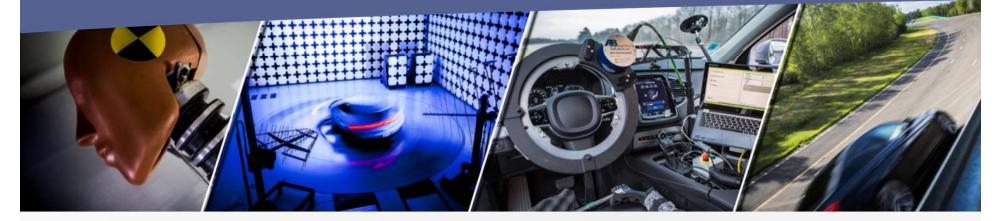


BMFE meeting

Next session

- 2 days meeting
- 2020, September 2nd 3rd
- Venue : Climate & Environment French Ministery (Paris, France)





Thanks for your attention.