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

IWG - BMFE
2 meetings on 2020, 1st semester

Chair: France (UTAC)
Secretary: CLCCR

8th meeting

Initially planned 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

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

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

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.
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

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

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 smoke 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 recommendations 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\textsuperscript{nd} – 3\textsuperscript{rd}
- Venue: Climate & Environment French Ministry (Paris, France)
Thanks for your attention.