

**Draft Notes of the 14<sup>th</sup> Session  
GRSG informal group on  
awareness of Vulnerable Road Users proximity  
in low speed manoeuvres (VRU-Proxi)**

Dates: 26<sup>th</sup> and 27<sup>th</sup> of May 2020  
Venue: Web meeting – Webex

**Please note this document contains draft notes only and is for reference only.**

**1. Forward motion Vehicle driving straight or taking off from standstill**

Documents: VRU-Proxi-14-02 (TRL)  
VRU-Proxi-14-03 (OICA-CLEPA)  
VRU-Proxi-14-04 (OICA-CLEPA)  
VRU-Proxi-14-13 (OICA-CLEPA)

Notes:

Proposals for changes to the drafted MOIS regulation were discussed with the group. The conclusions given below are also incorporated in document VRU-Proxi-14-13.

- Exemptions due to installation height. The Chair made the comparison to the discussions for ECE R58, R73 and R93 discussion of manufacturer with the type approval. Exemptions shall be as less as possible and need to be discussed with Technical Service. CPs agreed and FR argued having the same as R58 and R73.
- OICA-CLEPA proposed to not use the child dummy as the ISO standard and dummies are not available child dummy. The Chair argued to use same approach as in BSIS (30% smaller than adult cyclist). Agreed compromise aligned with R151: child dummy to be defined in specification section (real world requirements) but not in test section. Manufacturer to demonstrate with documentation, simulation or tests.
- Agreed minimum forward separation plane distance: 0.8 m instead of 0.35 m due to sensor installation height issues. Accepted by CPs but some CPs expect from the Industry to find solutions to reduce the minimum forward separation plane for future improvements. OICA to show an image of an average cab and a pedestrian at 0.8m to make the situation clear and to show that a pedestrian is in general not closer to the front of truck.
- Lighting conditions: CPs agreed on 15 lux possibly in combination with activation of the headlamps.
- The Chair questioned if obligation of manually deactivation is needed? Maybe better to not insist on a switch but leave it as an option.
- Definition of collision point / centre point of dummy. TRL will check if this remains an issue with the new agreement on the 0.8m distance.
- Definition of the driver eye point: it was proposed to use R46 eye point definition as it applies to all vehicles.

## 2. Reversing motion

Documents: VRU-Proxi-14-10 (Japan)  
VRU-Proxi-14-12 (OICA)

### Notes:

J and OICA presented proposed changes to the Reversing Motion draft regulation:

- Wording for the conditions for the backing event changed (using characters) in paragraph 15.1.1
- Paragraphs 15.2.1.5 and 17.2.1.1 were rephrased during the meeting
- It was agreed to harmonize the de-activation and activation requirements for RVS and detection system by adapting paragraphs 16.1.1.3 (RVC de-activation) and 17.1 (RVC system activation) as proposed by OICA.
- Changes to paragraph 1.2 of Annex 9: “rear bumper” replaced by “rearmost surface of the vehicle”. After some discussion on excluding trailer hitch it was agreed to add the following “Mechanical coupling devices and luggage racks located on the rear of the vehicle shall be disregarded”.
- J will clean up the document and prepare it as an informal document to replace the working document for the next GRSG (and WP29).

## 3. Forward motion Vehicle turning - Blind Spot Information System

Document: VRU-Proxi-14-05 (EC-OICA)

EC and OICA prepared a document with a proposal for changes to Supplement 2 to UN Regulation No. 151 with inclusion of the scope of M2 and N2 < 8t. The group agreed on the document to be submitted as informal document to GRSG for the 118<sup>th</sup> session.

## 4. Direct Vision

Documents: VRU-Proxi-14-06 (OICA-ACEA)  
VRU-Proxi-14-07 (OICA-ACEA)  
VRU-Proxi-14-08 (LDS)  
VRU-Proxi-14-09 (Apollo)  
VRU-Proxi-14-11 (T&E)

### Notes:

- Due to the COVID-19 situation LDS was not able to perform a physical test at the proving ground of Millbrook. It is expected that this exercise can be done by the mid of June 2020. The Chair asked LDS to provide more info on the real world test in the follow-up meeting (if available).
- The separated approach as discussed in VRU-Proxi 13 has been analysed by LDS. With this approach the volumes that would be required to be visible at each side (driver’s side, front and passenger side) were determined by using the visibility of the VRU head. Two approaches were considered:

- Using equation of the trend line based on VRUs standing at the outer positions (4.5m at passenger side, 2.0m to front and 1.0m at driver's side)
- Using existing vehicle which has an average VRU distance just below the point using the equation as above.

Based on the trend line approach the total visible volume would be less than the TfL 1 star boundary and the EMSR boundary. LDS stated that the separated approach should be based on using limits that are closer to the vehicle for determining the minimum volumetric score. LDS was asked to supply the spreadsheets and graphs for whole approach and separated approach.

- OICA-ACEA explained that direct vision is not the best solution and argued that active safety systems shall be taken into account as an alternative. Because of the different purposes, different visibility needs for long haulage and city trucks, technical constraints (also for future drivelines) and CO<sub>2</sub> emissions OICA-ACEA advocated for differentiated requirements including active safety for the different truck applications.
- OICA-ACEA presented a proposal for differentiation between urban and rural vehicles based on the VECTO segmentation approach and evidence was given based on "heat maps". The Chair welcomed the proposal as a good basis for the discussion on differentiation.
- Apollo presented a similar differentiation approach as presented by ACEA-OICA.
- The Chair asked CPs to have a close look to the proposals from OICA-ACEA and Apollo and to provide positions and feedback in the VRU0-Proxi 14 follow-up meeting.
- T&E presented a proposal for definition of different direct vision levels in the regulation. The Chairs sees basically no need for these levels and recommended to use neutral wordings or different paragraphs for different requirement levels.
- The Chair asked to think about different options for thresholds (limit values) for direct vision that are based on an analysis. LDS recommended that the minimum requirement must be based on the EMRS value with head only. OICA stated that first an agreed definition of the groups is needed before defining thresholds.

## 5. Terms of Reference

Document: VRU-Proxi-14-14 (J)

J proposed changes to the TOR. CPs and other stakeholders to evaluate the proposals before the follow-up meeting at the 24<sup>th</sup> of June 2020.

## 6. Any Other Item

OICA questioned if postponement of the GSR introduction is under consideration. The EC responded that there might be some delay due to COVID-19 but there is no official announcement or confirmation yet from the EU COM.