

**11<sup>th</sup> STCBC Meeting****Safer Transport of Children in Buses and Coaches**

Date: 22 June 2022

Time : 10h-17h CET

Location: Web-meeting (Zoom)

**1) Welcome & Meeting Arrangements (Chair, Marta)**

Marta welcomed everyone to the web-meeting and expressed her hope that future meetings could be face-to-face.

**2) Adoption of the agenda – STCBC-11-01**

The Agenda was adopted with no changes.

**3) Actions from last meeting**

Not discussed – the status of any actions would become apparent when reviewing the latest draft.

**4) Drafting the new UN Regulation - STCBC-11-03 (All)**Introduction

Marta explained that the place-holding text remains highlighted in blue and will be expanded as work on the draft regulation develops.

Definitions

Marta reminded the Group of the unresolved definitions from the previous meeting. These comprised:

- “Stand-alone”

The term remains highlighted in blue and will be reviewed later, if or when it is used in the main regulatory text.

- “Production qualification test”

Marta explained that the Group needs to decide whether production qualification testing (and therefore, a definition) is needed. She suggested this is discussed later, when the Group reaches the relevant section of the draft regulation (Note: The definition was later deleted).

Application for approval

There was no further discussion on this topic. At the previous (i.e. 10<sup>th</sup>) meeting, it was agreed to come back to this section at a future meeting.

Markings

Marta asked whether the manufacturer’s details (para. 5.1) and year of production (para. 5.2) are useful for traceability, or whether the information is redundant as the CRS will be built-in to the vehicle. Ronald (Consumers International) asked what is done for built-in CRS in cars. Marta agreed to check, adding that she will also review the requirements in UN Regulation No. 80. (Note: the requirement for manufacturer’s markings and the year of production were later deleted).

### General specifications

Marta reminded the Group of the open discussion points from the previous meeting. The comprised:

- **Load-bearing contact point:**  
Marta asked whether a requirement for a load-bearing contact point is relevant for a built-in CRS. Rudolf (Germany) asked the purpose of the load-bearing contact point. Dinos (Secretary/CLEPA) remarked that the requirement for a load-bearing contact point in UN Regulation No. 44 and in UN Regulation No. 129 is applicable to both integral and non-integral CRS. Although he doesn't recall the history, he understands it is intended to prevent the CRS from loading the vehicle seat belt buckle. Marta noted that the aim of the draft regulation is to ensure the restraint of children in a bus seat. She warned that this requirement might make built-in solutions more complicated. Yoshinori (Japan) agreed that it would be difficult to meet the requirement with a rear-facing CRS built-in to the vehicle seat back. Marta asked the Group to consider whether the requirement is needed in order to reach a decision at the next meeting.
- **Removal of components:**  
Marta introduced potential amendments to para. 7.2.1., which specifies rules for the removal of components from CRS. She explained that the new wording will ensure that no components can be removed, except impact shields and inserts, which have specific requirements in place. Dinos noted that built-in CRS will be used by the public and parents might be reluctant to use the CRS if parts are dirty from the previous child. Ronald added that replacements might be needed following vandalism or theft. Marta agreed and reinstated some of the previous wording relating to "maintenance".
- **Flammability:**  
Marta reminded the Group about the flammability discussions at the previous meeting and asked whether they had given further thought to the need for such requirements in this regulation. She noted that flammability requirements are already specified for buses in UN Regulations, but they apply to certain categories or classes only. Michael (OICA) replied that he agreed with Marianne's comment from the previous meeting that it is illogical to specify requirements (to a built-in CRS) that are not applicable in the rest of the vehicle. Ronald agreed that it makes sense to follow the main requirements of the bus. The Group agreed to delete the flammability requirements from the draft regulation.

### Tests

The Group reviewed the marking requirements derived from UN Regulation No. 129 line-by-line and agreed any changes. Aside from minor editorial clarifications and corrections, the following key discussion points were dealt with by the Group:

- **Overturning test:**  
Marta introduced document STCBC-11-02, which compares the overturning tests in UN Regulation No. 129 and UN Regulation No. 66. She explained that the test in

UN Regulation No. 129 is intended to assess the capacity of CRS to restraint the child in a roll-over event. In contrast, UN Regulation No. 66 assesses the capacity of the bus superstructure to provide a survival space in the event of the bus tipping over a verge. The Group agreed to keep the overturning test from UN Regulation No.129, for now, but to consider limiting the rotations to the y-axis only. The decision will be reviewed at the next meeting, following internal discussions by OICA members.

- Dynamic test:

Marta asked the Group for their views on the dynamic test set-up. In particular, she asked whether the test should be carried out with a single row for the CRS itself, or whether a second row should be placed in front of the CRS to assess the risks from head contact. Ronald asked what seat would be placed in front of the CRS as this might be impossible to control in the field. Marta replied that this approach assumes that the manufacturer of the built-in CRS is also the manufacturer of the seat in front. Rudolf noted this would then define an approved combination of seating, but the seat spacing might be different according to each particular vehicle.

Marta asked whether it is possible to combine seating from different manufacturers in the same vehicle. Michael replied that today, traditional seat rows could be from one manufacturer, but specialist rows for children could be from another manufacturer. Rudolf confirmed there is no requirement to have seats from the same manufacturer, adding that this is one of the reasons that the rear side of the seat is tested in UN Regulation No. 80. Marta then asked whether the draft regulation could specify a realistic head excursion limit, if only one seat row is used. Ronald suggested using a universal panel that meets the requirements of vehicle regulations. However, Rudolf noted that the applicability of UN Regulation No. 21 depends on the category of the bus.

Dinos suggested the Group is cautious about approving a ‘safe head contact’ or of giving the impression there is such a thing. He explained that a glancing head contact might generate a low HIC value, but could introduce potentially injurious neck loading that the dummy is not necessarily capable of detecting. A short discussion followed on the practicalities of specifying only one row combined with a head excursion limit that prevents head contact across a range of bus spacing configurations. Although the spread of seats is defined in the region of 650 to 680 mm, depending on the vehicle type, Rudolf noted that the minimum space behind a partition in UN Regulation No. 107 is 550 mm. The Group agreed to pursue this single seat row approach, with a head excursion limit of 550 mm, subject to internal investigation by OICA.

Marta asked the Group to consider whether it is necessary or appropriate to specify an installation tension for the seat belt of a built-in non-integral CRS. Yoshinori suggested the Group checks what is done for the adult belt in UN Regulation No. 94 or No. 137. Marta noted the Action.

#### Test reports of type-approval

Marta asked the Group to consider whether detailed specifications for the type-approval test report are needed and to prepare for a discussion at the next meeting.

#### Production qualification

Returning to the topic of production qualification testing (PQT), Marta explained that built-in CRS are not subject to PQT requirements in UN Regulation No. 44. In that regulation, each CRS category for which PQT is applicable is specified explicitly. No mention is made of built-in CRS, which indicates they are exempt. However, in UN Regulation No. 129, no categories are mentioned, which implies that PQT applies to everything, including built-in CRS. Rudolf suggested this was an unintentional oversight in the development of Regulation No. 129. A short discussion followed on the nature of vehicle and seat type-approval and the potential for swapping seats in type-approved and registered vehicles. Ultimately, the Group concluded that PQT is not needed in the draft regulation.

#### Conformity of production

The Group reviewed the text in UN Regulation No. 80 and agreed that, in general, it would be reasonable to adopt it for this regulation. This will be reviewed at the next meeting after the text is integrated in the working draft.

#### Modification and extension of an approval

The Group reviewed the text in UN Regulation No. 129 and agreed it could form the basis for this regulation. Marta will prepare wording for the next meeting.

#### Information for users

Marta explained that the Group agreed at the previous meeting that a digital user guide would be required, including a QR code that would allow the public to see the user instructions. As the regulation covers only built-in CRS, the instructions need only to describe how to restrain the child. Marta will prepare draft text for the next meeting.

### **5) Confirmation of tasks and responsibilities**

No significant tasks and responsibilities were recorded. However, the Group was asked to review the draft regulation (STCBC-11-03) before the next meeting and to take note of any open discussion points (highlighted blue, possibly with markup comments).

### **6) AOB**

No other business was discussed.

### **7) Next meeting**

The next meeting was scheduled for October 4 and 5, from 9.00 to 12.00 (CET) each day.

**Appendix 1 – Attendees**

Marta Angles – Chair	Spain
Dinos Visvikis – Secretary	CLEPA
Britta Schnottale	Germany
Ronald Vroman	Consumers International
Daniel Kutschkin	Australia
Abdul Nilar	Australia
Gonzalo Casas	Global NCAP
Kazumi Watanabe	Japan
Yoshinori Tanaka	Japan
Yuta Nozaki	Japan
Jun Gue Kwak	Korea
Hasan Sahin	OICA
Salim Abdennadher	OICA
Michael Becker	OICA
Rudolf Gerlach	Germany