



# Economic and Social Council

Distr.: General  
15 January 2015

Original: English

## Economic Commission for Europe

### Inland Transport Committee

### World Forum for Harmonization of Vehicle Regulations

### Working Party on Passive Safety

Fifty-sixth session

Geneva, 9–12 December 2014

## Report of the Working Party on Passive Safety on its fifty-sixth session

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## **I. Attendance**

1. The Working Party on Passive Safety (GRSP) held its fifty-sixth session in Geneva from 9 to 12 December 2014, chaired by Mr. Nha Nguyen (United States of America).<sup>1</sup> Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690, Amend.1 and Amend.2): Australia; Belgium; Brazil; Czech Republic; China; France; Germany; Hungary; India; Italy; Japan; Netherlands; Norway; Poland; Republic of Korea; Russian Federation; Spain; Sweden; Switzerland and United States of America. An expert from the European Commission (EC) participated. Experts from the following non-governmental organizations participated: Consumers International (CI); European Association of Automotive Suppliers (CLEPA); International Motorcycle Manufacturers Association (IMMA); the Foundation for the Automobile and Society (FIA Foundation); Global New Car Assessment Programme (Global NCAP) and International Organization of Motor Vehicle Manufacturers (OICA).

2. The informal documents distributed during the session are listed in Annex I of this report.

## **II. Adoption of the agenda (agenda item 1)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/14 and Add.1  
Informal document GRSP-56-02

3. GRSP considered and adopted the agenda (ECE/TRANS/WP.29/GRSP/2014/14 and Add.1) proposed for the fifty-sixth session with the new agenda items 22(g) to 22(i), 23 and 24 as well as the running order (GRSP-56-02). The list of GRSP informal working groups is contained in Annex IX to this report.

## **III. Global technical regulation No. 7 (Head restraints) (agenda item 2)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2013/17  
ECE/TRANS/WP.29/GRSP/2013/24  
Informal documents GRSP-56-04 and GRSP-56-05

4. The expert from Germany, on behalf of the Chair of the Informal Working Group (IWG) on the UN Global Technical Regulation (UN GTR) No. 7 - Phase 2, informed GRSP about the work progress of the IWG (GRSP-56-04). He clarified that the IWG had defined a short list of candidate injury criteria to be used in the test of the UN GTR Phase 2. He added that the test pulse had been defined and that good repeatability and reproducibility of the biomechanical rear impact dummy (bioRID) had been achieved. He concluded that a full set of drawings and specifications of the dummy would be incorporated in the draft Addendum 1 of the Mutual Resolution No. 1 (M.R.1), along with the draft amendment to the UN GTR by the December 2015 session of GRSP. The expert from Japan added the presentation of the expert from Germany by introducing the status report of the IWG (GRSP-56-05).

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<sup>1</sup> In absence of Ms. M. Versailles, on the proposal of the Vice-Chair, GRSP agreed to appoint as Chair for this session Mr. N. Nguyen.

5. Concerning the height of head restraints, the expert from the Netherlands reminded GRSP that a proposal with new thresholds had been submitted last year (ECE/TRANS/WP.29/GRSP/2013/17) and that the new measurement method agreed by the IWG was guaranteeing good repeatability. The expert from OICA argued that the new test method by itself was reducing the measured height of the head restraints by about 30 mm and that the additional severity due to the new thresholds referenced in ECE/TRANS/WP.29/GRSP/2013/17 needed further justification. The expert from India, was of the opinion that an anthropometry study should be carried out to investigate the consequences of increased height of head restraints.

6. Finally, GRSP agreed to resume discussion on this agenda subject at its May 2015 session on the basis of the outcome of work of the IWG.

## **IV. Global technical regulation No. 9 (Pedestrian safety) (agenda item 3)**

### **A. Proposal for Phase 2 of the global technical regulation**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/15  
ECE/TRANS/WP.29/GRSP/2014/16  
ECE/TRANS/WP.29/GRSP/2014/17  
ECE/TRANS/WP.29/GRSP/2014/30  
Informal documents GRSP-56-03, GRSP-56-20, GRSP-56-21,  
GRSP-56-30, GRSP-56-38 and GRSP-56-39

7. The expert from Germany, co-Chair of the IWG on pedestrian safety, reported on the progress of work of the IWG on UN GTR No. 9 - Phase 2 to incorporate the flexible pedestrian legform impactor (FlexPLI). The expert from the United States of America informed the group that the process of transposition of the UN GTR Phase 1 would start when the notice of proposed regulation making (NPRM) is expected to be completed by the end of 2015. He added that the cost/benefit analysis for the Phase 1 and 2 of the UN GTR is expected to be completed by summer 2015. He announced that once the analysis is finalized his delegation would be ready to define its position for the Phase 2. The expert from Germany reminded that the mandate of the IWG had been extended by the Executive Committee of the 1998 Agreement (AC.3) (ECE/TRANS/WP.29/1112, para. 117) until November 2015. He announced that a draft addendum to the M.R.1 would be submitted by the IWG to the May 2015 session of GRSP.

8. The expert from EC introduced ECE/TRANS/WP.29/GRSP/2014/17 and ECE/TRANS/WP.29/GRSP/2014/30, submitted by the Task Force on Bumper Test Area (TF-BTA), a subgroup of the Informal Working Group on global technical regulation No. 9 - Phase 2, and proposing an amendment to the provisions of the bumper test. He explained that the current provisions allow the area to be narrower than intended in the provisions of the UN GTR. He added that ECE/TRANS/WP.29/GRSP/2014/17 was proposing a new method by introducing a practical determination of angle surfaces, to be tested with the FlexPLI, by using a corner gauge. Moreover, he explained that ECE/TRANS/WP.29/GRSP/2014/30 was proposing the introduction of the definition of rigid bumper beam in the test area in addition to the above-mentioned new test method. He finally informed GRSP that a test report on research conducted by EC on this issue was available at:  
<http://ec.europa.eu/DocsRoom/documents/6661/attachments/1/translations/en/renditions/nat>  
ive. The expert from Japan gave a presentation (GRSP-56-03) to support ECE/TRANS/WP.29/GRSP/2014/17. The expert from Korea presented GRSP-56-20 supporting ECE/TRANS/WP.29/GRSP/2014/30. The expert from OICA introduced GRSP-56-30, supporting the new method as proposed by

ECE/TRANS/WP.29/GRSP/2014/17, because the test is less sensitive to specific design features and it could be performed without disassembling parts. Moreover, GRSP discussed GRSP-56-38 and GRSP-56-39, superseding respectively ECE/TRANS/WP.29/GRSP/2014/17 and ECE/TRANS/WP.29/GRSP/2014/30.

9. GRSP endorsed GRSP-56-39, but did not support GRSP-56-38. The secretariat was requested to distribute GRSP-56-39 with an official symbol for consideration at its May 2015 session. It was agreed that this proposal would be discussed further by the Contracting Parties under the 1998 Agreement and by GRSP at its next sessions as a full package with: (i) an updated draft proposal of Phase 2 of the UN GTR (ECE/TRANS/WP.29/GRSP/2014/15) and (ii) an updated final report of the IWG (ECE/TRANS/WP.29/GRSP/2014/16).

10. Finally, the expert from the Republic of Korea introduced GRSP-56-21 for information only. He explained that pedestrian safety was a relevant road safety issue in his country, causing more than 2000 casualties each year and stated the availability of his delegation to prepare proposals concerning tests of active devices to further improve vehicle performances.

## **B. Proposal for Amendment 2**

*Documentation:* ECE/TRANS/WP.29/GRSP/2012/2  
ECE/TRANS/WP.29/GRSP/2014/2  
ECE/TRANS/WP.29/GRSP/2014/5

11. GRSP agreed to defer discussion on this agenda item to its next sessions awaiting the outcome of the cost/benefit analysis and the transposition process of the UN GTR Phase 1 into the legislation of the United States of America.

## **V. Harmonization of side impact dummies (agenda item 4)**

*Documentation:* Informal document WP.29-164-26

12. The expert from Australia recalled GRSP about the decision of AC.3 (ECE/TRANS/WP.29/1112, para. 83) to adopt a new Addendum 2 to the M.R.1 to include specifications on the 50<sup>th</sup> percentile World Side Impact Dummy (WorldSID), by referring them to the corresponding ISO standard (as a temporary solution) awaiting the availability of the full set of drawings from ISO. The Chair of GRSP informed GRSP that the goal of the IWG on harmonization of side impact dummies was to convene at the beginning of 2015 to incorporate the specifications of that dummy in the M.R.1. However, he added that the work of the IWG would continue to incorporate the specifications of the fifth percentile dummy. Finally, GRSP noted WP.29-164-26, distributed at the November 2015 session of WP.29, providing an update on the cooperation of WP.29 secretariat with ISO, concerning the accessibility of ISO standards to the experts of subsidiary bodies of WP.29.

## **VI. Global technical regulation on electric vehicles (agenda item 5)**

13. The Chair of GRSP, co-Chair of the IWG on Electric Vehicle Safety (EVS), reported on the progress of work of the IWG. He informed GRSP that the most recent meeting of the IWG was held in Seoul (18-20 November 2014) and that experts continued to share research data and the progress of the eight Task Force teams (Rechargeable Energy Storage Systems (REESS), in-use test protocol, Cell/Module/System test, state of charge of

batteries (SOC), fire resistance, protection against water intrusion, electrolyte leakage and low electric energy and inclusion of other vehicle classes). He added that experts from contracting parties and the industry provided update on their research on Li-ion batteries, specifically on the on-going research in the United States of America. He clarified that it was critical to provide such research data and a justification to develop UN GTR requirements. He also recalled GRSP that WP.29 at its June 2014 session, agreed to extend the mandate of the IWG until December 2015 (ECE/TRANS/WP.29/1110, para. 99). Finally, he announced that the next meeting of the IWG is scheduled for March 2015 and that the group was expected to submit a draft UN GTR to the December 2015 session of GRSP.

## **VII. Regulation No. 14 (Safety-belt anchorages) (agenda item 6)**

*Documentation:* ECE/TRANS/WP.29/2014/34  
ECE/TRANS/WP.29/GRSP/2013/15  
ECE/TRANS/WP.29/GRSP/2014/18  
Informal documents GRSP-56-11-Rev.1 and GRSP-56-32

14. GRSP noted the decision taken by the World Forum during the June 2014 session to refer back to GRSP ECE/TRANS/WP.29/2014/34 (ECE/TRANS/WP.29/1110, para. 52) to further consider the minimum number of ISOFIX anchorages. The expert from OICA introduced GRSP-56-11-Rev.1, amending ECE/TRANS/WP.29/2014/34, superseding ECE/TRANS/WP.29/GRSP/2014/18 and ECE/TRANS/WP.29/GRSP/2013/15 and addressing the widest range of possible vehicle types and configurations. GRSP adopted ECE/TRANS/WP.29/2014/34 as amended by Annex II to this report. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration and vote at their June 2015 sessions, as draft Supplement 6 to the 07 series of amendments to UN Regulation No. 14.

15. The expert from OICA introduced GRSP-56-32, improving the provisions concerning vehicle of category M<sub>1</sub> having only one seat row and introducing a new definition of "bucket seat". The expert from EC stated that this last definition needed further discussion. The expert from Japan in principle disagreed on the proposed limit of 140 for the power to mass ratio index to exempt vehicles, exceeding that value, from having ISOFIX positions. Finally, GRSP requested the secretariat to distribute GRSP-56-32 with an official symbol at its May 2015 session.

## **VIII. Regulation No. 16 (Safety-belts) (agenda item 7)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2012/25  
ECE/TRANS/WP.29/GRSP/2014/27  
Informal documents GRSP-56-10, GRSP-56-14, GRSP-56-16, GRSP-56-35 and GRSP-56-42

16. The expert from CLEPA introduced GRSP-56-10 (superseding ECE/TRANS/WP.29/GRSP/2014/27) aimed at clarifying the provisions for dynamic testing of rear seat system and advanced restraint system approval. The expert from France stressed the need to update the test provisions to verify displacement of rear occupants wearing safety-belts equipped with load limiters. He informed GRSP that the New Car Assessment Programme was defining similar provisions by using the fifth percentile female dummy. GRSP agreed to resume discussion on this subject at its May 2015 session and requested the secretariat to distribute GRSP-56-10 with an official symbol.

17. The expert from OICA introduced GRSP-56-14, complemented by GRSP-56-16, reproducing a consolidated text of the amendments proposed. He explained that the

proposal was needed to verify which seating positions would allow the installation of the universal booster child restraint system (CRS) proposed by the draft 01 series of amendments to the UN Regulation No. 129 (Enhanced Child Restraint Systems) (see para. 33 below). He clarified that the proposal was aimed at introducing physical, computer simulation or any other means to assess through fixtures the above-mentioned installations. The expert from CLEPA introduced GRSP-56-35, to clarify the dimensions of ISOFIX anchorages of the proposed fixture. The expert from OICA argued that GRSP-56-35 could lead to misinterpretation since UN Regulation No. 16 is not dealing with ISOFIX anchorage provisions. The expert from EC noted that the required information on ISOFIX installation (see Annex 17, Appendix 3, tables 1-3 of the UN Regulation No. 16) could be misleading for consumers. The expert from France clarified that the introduction of booster cushion was aimed at improving comfort rather than safety and that the IWG designed provisions for a universal system of this type of CRS as per other CRS. GRSP agreed to refer GRSP-56-14, GRSP-56-16 and GRSP-56-35 to the IWG on CRS for further discussion and agreed to resume consideration on this subject at its May 2015 session.

18. GRSP noted GRSP-56-42 (for information only), tabled by the expert from Korea and aimed at introducing the mandatory fitting of safety-belt reminders also for rear seats. GRSP agreed to resume discussion on this subject at its May 2015 session and to keep ECE/TRANS/WP.29/GRSP/2012/25 in the agenda for possible discussion at its next sessions.

## **IX. Regulation No. 17 (Strength of seats) (agenda item 8)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/19  
ECE/TRANS/WP.29/GRSP/2014/20  
ECE/TRANS/WP.29/GRSP/2014/21  
Informal document GRSP-56-07

19. GRSP resumed consideration on a proposal tabled by the expert from CLEPA (ECE/TRANS/WP.29/GRSP/2014/19), introducing provisions to define the moment of inertia of the luggage impact test. GRSP adopted the proposal and requested the secretariat to submit the proposal to WP.29 and AC.1, for consideration and vote at their June 2015 sessions as draft Supplement 3 to the 08 series of amendments to UN Regulation No. 17.

20. The expert from Germany introduced ECE/TRANS/WP.29/GRSP/2014/20 proposing the prohibition of side-facing seats for any N category of vehicle. The expert from OICA argued that the proposed amendment would also ban some special purpose vehicles which so far did not create safety issue and offered his cooperation to revise the proposal. GRSP noted that the issue was focused on the corresponding EU Directive rather than UN Regulation No. 17 provisions. Accordingly, the expert from Germany withdrew the proposal and GRSP agreed to remove this subject from the agenda of the May 2015 session.

21. GRSP considered and adopted ECE/TRANS/WP.29/GRSP/2014/21, correcting an error in the UN Regulation No. 17. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration and vote at their June 2015 sessions as part of draft Supplement 3 to the 08 series of amendments to UN Regulation No. 17 (see para. 19 above).

22. Referring to the discussion under agenda item 7 (see para. 16), the expert from the Netherlands introduced GRSP-56-07, proposing a possible amendment to cover the issue of occupant displacement due to the presence of safety-belt load limiters installed on seats other than front seats. He announced the intention to submit a new proposal on this subject for the May 2015 session of GRSP.

## **X. Regulation No. 22 (Protective helmets) (agenda item 9)**

23. GRSP agreed to defer discussion on this agenda item at its May 2015 session based on the outcome of a research on helmets announced by the expert from Germany.

## **XI. Regulation No. 29 (Cabs of commercial vehicles) (agenda item 10)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/4  
ECE/TRANS/WP.29/GRSP/2014/29

24. The expert from the Russian Federation introduced ECE/TRANS/WP.29/GRSP/2014/4, introducing requirements to ensure that, during a pendulum impact test, the cab should remain safely attached to the chassis frame. GRSP adopted the proposal, as amended by Annex III to this report. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration and vote at their June 2015 sessions as draft Supplement 3 to the 03 series of amendments to UN Regulation No. 29.

25. GRSP considered ECE/TRANS/WP.29/GRSP/2014/29 tabled by the expert from Germany, aimed at clarifying existing test requirements when a pendulum is used as an impactor. GRSP adopted the proposal, as amended by Annex III to this report. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration and vote at their June 2015 sessions as part of draft Supplement 3 to the 03 series of amendments to UN Regulation No. 29 (see para. 24. above).

## **XII. Regulation No. 44 (Child restraint systems) (agenda item 11)**

*Documentation:* Informal documents GRSP-56-06 and GRSP-56-26

26. The expert from Spain introduced GRSP-56-06, to improve dynamic test provisions for CRS and to cope with the presence of load limiters on safety belts used to fix CRS. The expert from EC raised a study reservation and GRSP agreed to resume discussion on this subject at its May 2015 session. In the meantime, the secretariat was requested to distribute GRSP-56-06 with an official symbol at the next session of GRSP.

27. GRSP considered GRSP-56-26, tabled by the expert from CLEPA, aimed at updating the references to the European standard on toxicity and flammability of materials used to manufacture CRS. GRSP agreed to resume discussion on this subject at its May 2015 session and requested the secretariat to distribute GRSP-56-26 with an official symbol.

## **XIII. Regulation No. 80 (Strength of seats and their anchorages (buses)) (agenda item 12)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/25

28. GRSP considered ECE/TRANS/WP.29/GRSP/2014/25, tabled by the expert from Germany to avoid any misinterpretation of the provisions for the installation of side-facing seats in vehicles of category M<sub>3</sub>. GRSP adopted the proposal, not amended, and requested the secretariat to submit it to WP.29 and AC.1, for consideration and vote at their June 2015 sessions as draft Supplement 1 to the 03 series of amendments to UN Regulation No. 80.



#### **XIV. Regulation No. 94 (Frontal collision) (agenda item 13)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/22  
Informal document GRSP-56-15-Rev.2

29. The expert from France, Chair of the frontal impact (FI) IWG, introduced ECE/TRANS/WP.29/GRSP/2014/22 to align the UN Regulation No. 94 with the provisions of new draft UN Regulation (full-width frontal collision) on the protection of older occupants. The proposal received comments from the expert from Germany who proposed to keep the current neck injury criteria. Finally, the expert from France proposed GRSP-56-15-Rev.2, amending ECE/TRANS/WP.29/GRSP/2014/22. GRSP agreed to resume discussion at its May 2015 session and requested the secretariat to distribute GRSP-56-15-Rev.2 with an official symbol.

#### **XV. Regulation No. 95 (Lateral collision) (agenda item 14)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/24

30. GRSP adopted ECE/TRANS/WP.29/GRSP/2014/24 without amendment, aimed at solving inconsistencies in Annex 5 of the UN Regulation, by deleting its Appendix 3. GRSP requested the secretariat to submit ECE/TRANS/WP.29/GRSP/2014/24 to WP.29 and AC.1, for consideration and vote at their June 2015 sessions as draft Supplement 5 to the 03 series of amendments to UN Regulation No. 95.

#### **XVI. Regulation No. 100 (Battery electric vehicle safety) (agenda item 15)**

*Documentation:* Informal documents GRSP-56-17 and GRSP-56-18

31. The expert from Germany introduced GRSP-56-17 and GRSP-56-18, aimed at clarifying the provisions for connectors of electric vehicles. GRSP adopted both proposals, as reproduced in Annex IV to this report. The secretariat was requested to submit GRSP-56-17 and GRSP-56-18 to WP.29 and AC.1, for consideration and vote at their June 2015 sessions, respectively as: (i) draft Supplement 4 to the 01 series of amendments and as (ii) draft Supplement 2 to the 02 series of amendments to UN Regulation No. 100.

#### **XVII. Regulation No. 127 (Pedestrian safety) (agenda item 16)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/31  
ECE/TRANS/WP.29/GRSP/2014/32  
Informal documents GRSP-56-40 and GRSP-56-41

32. Referring to the decision held under agenda item 3(a) (see paragraphs 8. and 9.), GRSP endorsed in principle GRSP-56-41 (superseding ECE/TRANS/WP.29/GRSP/2014/31, ECE/TRANS/WP.29/GRSP/2014/32 and GRSP-56-40), introducing the new bumper test method and the definition of bumper beam. GRSP agreed to resume discussion at its May 2015 session to define proper transitional provisions and decide whether to adopt the proposal either as a new series of amendments or as a supplement. Finally, the secretariat was requested to distribute GRSP-56-41 with an official symbol at the next session of GRSP.

## **XVIII. Regulation No. 129 (Enhanced Child Restraint Systems) (agenda item 17)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/28  
Informal documents GRSP-56-08, GRSP-56-09, GRSP-56-24, GRSP-56-27, GRSP-56-28 and GRSP-56-31-Rev. 1

33. The expert from France, Chair of the IWG on Enhanced Child Restraint Systems (ECRS), introduced: (i) a presentation to show the main content of the draft 01 series of amendments incorporating provisions for booster seats (GRSP-56-28), (ii) the draft proposal (GRSP-56-08 superseding ECE/TRANS/WP.29/GRSP/2014/28) and (iii) the consolidated version of the UN Regulation, incorporating the proposed amendments (GRSP-56-09). The expert from OICA proposed to reduce the height of the measuring device, to evaluate a universal booster cushion, from 910 mm to 830 mm. He explained that this last value would be less restrictive for vehicle design. The expert from EC informed GRSP that a research test report on child abdominal injuries would be published soon. Accordingly, he raised a study reservation to consider the above-mentioned outcome of research and to complete the assessment of GRSP-56-08. GRSP agreed to resume discussion at its May 2015 session to consider and adopt, as a whole, draft 01 series of amendments and the parallel amendments to UN Regulation No. 16 (see para. 17). Finally, the secretariat was requested to distribute GRSP-56-08 with an official symbol at the next GRSP session.

34. The expert from France informed GRSP that, for the time being, the IWG does not have the resources to provide a corresponding Addendum to the M.R.1. to include drawings and specifications of the Q dummies, due to their number and complexity. He explained that the IWG likely would reallocate resources in the future to cover this issue. Finally, he asked for a one year extension of mandate of the IWG to develop Phase 3 of the UN Regulation (covering CRS using adult safety-belts to restrain children). The expert from Germany underlined that the initial purpose of the UN Regulation, to incorporate for better clarity all provisions concerning universal ISOFIX, had been compromised by covering a number of different CRS categories. Finally, GRSP agreed to seek the endorsement of WP.29 to extend the mandate of the IWG until December 2015.

35. GRSP considered and adopted GRSP-56-31-Rev.1, to prevent installation of y-shaped straps on forward facing CRS, as reproduced in Annex V of this report. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration and vote at their March 2015 sessions, as draft Supplement 4 to the UN Regulation No. 129 (ECE/TRANS/WP.29/2015/43).

36. The experts from CLEPA and CI introduced respectively GRSP-56-24 and GRSP-56-27, as a draft brochure for a coordinated information campaign on UN Regulation No. 129. The expert from Germany announced that a similar initiative would be published soon in his country. GRSP agreed to resume discussion on this subject on the basis of a possible common text agreed by interested parties.

## **XIX. Proposal for a new Regulation on Frontal Impact (agenda item 18)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/10  
ECE/TRANS/WP.29/GRSP/2014/23  
Informal documents GRSP-56-13-Rev.1, GRSP-56-23-Rev.2 and GRSP-56-36

37. The expert from France, Chair of the Frontal Impact IWG, introduced the latest draft amendments of his group (ECE/TRANS/WP.29/GRSP/2014/23) to the draft UN Regulation (ECE/TRANS/WP.29/GRSP/2014/10) on frontal impact with focus on the restraint system, with a thorax compression criterion (ThCC) of 42 mm. He also introduced GRSP-56-36, showing three possible solutions to implement a ThCC of 34 mm for the Hybrid III fifth percentile female dummy as requested by the expert from Japan. The expert from OICA introduced GRSP-56-13-Rev.1 endorsing 42 mm criterion because more balanced to protect both young and elderly people. He added that if a decision would be taken by GRSP to endorse 34 mm, this should be introduced at a later stage as a new series of amendments. The expert from Japan introduced GRSP-56-23-Rev.2 aimed at supporting a ThCC of 34 mm and stated that this value was evidence based for its feasibility. The expert from Sweden stated that she was not in the position to support one of the two values. The expert from Italy was in favour of 42 mm because the ThCC of 34 mm criterion needed further investigation. The expert from EU announced that a test programme (sponsored by the European Union) would start at the beginning of 2015 to investigate on this issue. GRSP agreed to resume discussion at its May 2015 session on the basis of revised proposals to be submitted by the expert from France (including GRSP-56-13-Rev.1 and GRSP-56-23-Rev.2).

## **XX. Proposal for a new Regulation on electric vehicles of category L (agenda item 19)**

*Documentation:* ECE/TRANS/WP.29/GRSP/2014/11  
ECE/TRANS/WP.29/GRSP/2014/26  
Informal document GRSP-56-01

38. The expert from Germany, Chair of the IWG on Rechargeable Energy Storage System (REESS), introduced ECE/TRANS/WP.29/GRSP/2014/26 amending ECE/TRANS/WP.29/GRSP/2014/11 and proposing a draft UN Regulation on safety requirements with respect to the electric power train of vehicles of categories L with a maximum design speed exceeding 6 km/h. The expert from IMMA proposed some amendments (GRSP-56-01) superseding ECE/TRANS/WP.29/GRSP/2014/26. Finally, GRSP adopted ECE/TRANS/WP.29/GRSP/2014/11 as amended by Annex VI to this report. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration and vote at their June 2015 sessions as a new draft UN Regulation on electric vehicles of category L.

## **XXI. Collective amendments to Regulations Nos. 14 and 16 (agenda item 20)**

*Documentation:* Informal document GRSP-56-19

39. GRSP noted GRSP-56-19, tabled by the expert from the Netherlands to clarify that the adjustment device for the height of the effective upper anchorage (introduced recently for buses) might be part of the anchorage or of the safety-belt requirements. The expert

from Spain underlined that these systems should be type approved according to UN Regulation No. 44 if they are intended to restrain children. GRSP agreed to resume discussion at its May 2015 session and requested the secretariat to distribute GRSP-56-19 with an official symbol.

## **XXII. Election of officers (agenda item 21)**

40. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690 and ECE/TRANS/WP.29/690/Amend.1), GRSP called for the election of officers. The representatives of the Contracting Parties, present and voting, elected unanimously Mr. N. Nguyen (United States of America) as Chair and Mr. J.W. Lee (Republic of Korea) as Vice-Chair for the sessions of GRSP scheduled in the year 2015.

## **XXIII. Other business (agenda item 22)**

### **A. Exchange of information on national and international requirements on passive safety**

*Documentation:* Informal documents GRSP-56-22, GRSP-56-29 and GRSP-56-34

41. GRSP agreed to defer discussion on this subject to its May 2015 session, due the lack of time and to keep GRSP-56-22, GRSP-56-29 and GRSP-56-34 as a reference in the agenda of the next session.

### **B. Definition and acronyms in the Regulations under the responsibilities of GRSP**

*Documentation:* Informal document GRSP-51-03

42. GRSP agreed to submit GRSP-51-03 to the March 2015 session of WP.29, as the contribution of GRSP to a living informal document of the World Forum (permanently appended in its website) gathering acronyms of UN Regulations and UN GTRs.

### **C. Development of the International Whole Vehicle Type Approval (IWVTA) system and involvement of the Working Parties and involvement of the Working Parties (GRs)**

*Documentation:* Informal document WP.29-164-22-Rev.1

43. The secretariat reported on the activities of the IWG on IWVTA and its subgroups. The expert from Japan, GRSP ambassador to IWVTA introduced WP.29-164-22-Rev.1, providing an outline of the latest update of draft UN Regulation No. 0 that would be annexed to the Revision 3 of the 1958 Agreement. The expert from Australia informed GRSP about the difficulties to transpose UN Regulation No. 14 into the national legislation of his country, due to the conflict of its upper tether provisions with those of the corresponding Australian Design Rule (ADR). The expert from Germany recognized the relevance of UN Regulation No. 14 for the IWVTA and encouraged to find a solution on this issue by the May 2015 session of GRSP.

**D. Highlights of the June and November 2014 sessions of WP.29**

44. The Secretary reported on the highlights of the 163<sup>rd</sup> and 164<sup>th</sup> sessions of WP.29 (ECE/TRANS/WP.29/1110 and ECE/TRANS/WP.29/1112).

**E. Non-harmonized definitions in Regulations under the responsibility of GRSP**

*Documentation:* Informal document GRSP-55-03

45. GRSP received no comments from experts on this subject and decided to remove it from the agenda of its May 2015 session.

**F. Three-dimensional H-point machine**

*Documentation:* Informal document GRSP-56-37

46. The expert from Germany introduced GRSP-56-37 to inform GRSP on the activity concerning the terms of reference and the work plan for the IWG to harmonize the specifications of the three-dimensional H-point machine.

**G. Intelligent Transport Systems (ITS)**

47. The secretariat informed GRSP of a workshop on ITS held on 17–18 November in Brussels and co-organized by UNECE and the Federal Public Service Mobility and Transport of Belgium. GRSP noted that the goal of the workshop was to discuss how technology could be better used to create a driving and transportation culture that contributes to safe, efficient and sustainable mobility in the coming years. GRSP agreed to keep this item in the agenda of its future sessions for exchange of information.

**H. Regulation on Pole Side Impact**

*Documentation:* Informal documents GRSP-56-12 and GRSP-56-33

48. The expert from Australia introduced GRSP-56-33 (superseding GRSP-56-12), to clarify the scope of the UN Regulation. GRSP adopted the proposal as reproduced in Annex VII of this report. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration and vote at their June 2015 sessions, as draft Supplement 1 to the new UN Regulation on Pole Side Impact.

**I. Regulation on Hydrogen and Fuel Cells Vehicles**

*Documentation:* Informal document GRSP-56-25

49. GRSP considered and adopted GRSP-56-25, to correct information provided by a label permanently affixed on hydrogen containers, as reproduced in Annex VIII to this report. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration and vote at their June 2015 sessions, as draft Supplement 1 to the new UN Regulation on hydrogen and fuel cell vehicles (HFCV).

## **XXIV. Tributes (agenda item 23)**

50. Learning that Ms. M. Versailles (United States of America) would no longer participate in future sessions of GRSP, the group acknowledged her as an excellent Chair of GRSP during the three years of her mandate. GRSP also learned that Mr. V. Salnikov (Russian Federation) would no longer attend in future sessions of GRSP, the group thanked him for his valuable contributions over more than twenty years of work with the GRSP. The group wished both of them all the best in their future activities.

**XXV. Provisional agenda for the next session (agenda item 24)**

51. For its fifty-seventh session, scheduled to be held in Geneva from 18 (2.30 p.m.) to 22 (12.30 p.m.) May 2015, GRSP noted that the deadline for the submission of official documents to the secretariat was 20 February 2015, twelve weeks prior to the session. GRSP agreed the following provisional agenda:

1. Adoption of the agenda.
2. Global technical regulation No. 7 (Head restraints).
3. Global technical regulation No. 9 (Pedestrian safety):
  - (a) Phase 2 of the global technical regulation;
  - (b) Proposal for Amendment 3.
4. Harmonization of side impact dummies.
5. Global technical regulation on electric vehicles.
6. Regulation No. 14 (Safety-belt anchorages).
7. Regulation No. 16 (Safety-belts).
8. Regulation No. 17 (Strength of seats).
9. Regulation No. 22 (Protective helmets).
10. Regulation No. 44 (Child restraints systems).
11. Regulation No. 80 (Strength of seats and their anchorages (buses)).
12. Regulation No. 94 (Frontal impact).
13. Regulation No. 127 (Pedestrian safety).
14. Regulation No. 129 (Enhanced child restraint systems).
15. Proposal for a new Regulation on Frontal Impact.
16. Collective amendments Regulations No. 14 and 16.
17. Other business:
  - (a) Exchange of information on national and international requirements on passive safety;
  - (b) Definition and acronyms in Regulations under GRSP responsibilities;
  - (c) Development of the International Whole Vehicle Type Approval (IWVTA) system and involvement of the Working Parties;
  - (d) Highlights of the March 2015 session of WP.29;
  - (e) Three-dimensional H-point machine;
  - (f) Intelligent transport systems.

## Annex I

### List of informal documents (GRSP-56-...) distributed without an official symbol during the session

<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
01	IMMA	19	E	Proposal for correction of amendments to the draft new Regulation (ECE/TRANS/WP.29/GRSP/2014/26)	(a)
02	GRSP Chair	1	E	Running order of the fifty-sixth session of GRSP	(a)
03	Japan	3(a)	E	Opinion on the proposals of the Task Force – Bumper Test Area	(a)
04	Chair of IWG on GTR No. 7	2	E	Progress report and work schedule	(a)
05	Japan	2	E	Draft 6 <sup>th</sup> progress report of the IWG on GTR No. 7 – Phase 2	(a)
06	Spain	11	E	Proposal for Supplement 10 to the 04 series of amendments to Regulation No. 44 (Child Restraint Systems)	(b)
07	The Netherlands	8	E	Proposal for amendments to Regulation No. 17 (Strength of seats)	(a)
08	France	17	E	Proposal for amendments to ECE/TRANS/WP.29/GRSP/2014/28 – Draft 01 series of amendment to Regulation No. 129	(b)
09	France	17	E	Draft 01 series of amendments to Regulation No. 129 (Consolidated version)	(a)
10	CLEPA	7	E	Proposal for amendments to ECE/TRANS/WP.29/GRSP/2014/27 (Regulation No. 16)	(b)
11/ Rev.1	OICA	6	E	Proposal for Supplement 6 to the 07 series of amendments to Regulation No. 14 (Safety-belt anchorages)	(a)
12	OICA	22(h)	E	Proposal for Supplement 1 to the Regulation and for Supplement 1 to the 01 series of amendments to the Regulation on Pole Side Impact	(a)
13/ Rev.1	OICA	18	E	Proposal for amendments to ECE/TRANS/WP.29/GRSP/2014/23 (draft new Regulation on Frontal Impact)	(a)



<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
14	OICA	7	E	Proposal for Supplement 6 to the 06 series of amendments to Regulation No. 16 (Safety-belts)	(a)
15/ Rev.2	OICA	13	E	Proposal for amendments to ECE/TRANS/WP.29/GRSP/2014/22 (Frontal collision)	(b)
16	OICA	7	E	Proposal for Supplement 6 to the 06 series of amendments to Regulation No. 16 (Consolidated version)	(a)
17	Germany	15	E	Proposal for Supplement 4 to the 01 series of amendments to Regulation No. 100 (Battery electric vehicle safety)	(d)
18	Germany	15	E	Proposal for Supplement 2 to the 02 series of amendments to Regulation No. 100 (Battery electric vehicle safety)	(d)
19	The Netherlands	20	E	Proposal for collective amendments to Regulations Nos. 14 and 16	(b)
20	Republic of Korea	16	E	Clarification of relaxation area(s) for flexible lower legform to bumper test	(a)
21	Republic of Korea	3(a)	E	Clarification of test methods for active devices in pedestrian protection	(a)
22	Japan	22(a)	E	Information on Japanese National activities regarding Hydrogen Fuel Cell Motorcycles (HFCM)	(c)
23/ Rev.2	Japan	18		Draft new 01 series of amendments of Regulation No. [X] concerning approval of the Full Width Rigid Barrier test	(a)
24/ Rev.1	CLEPA	17	E	UN Regulation No. 129 (i-Size UN Regulation): An important step towards an enhanced child protection in crashes	(a)
25	Japan	22(i)	E	Proposal of amendments to the UN Regulation on Hydrogen and Fuel Cell Vehicles	(d)
26	CLEPA	11	E	Proposal for Supplement 10 to the 04 series of amendments to Regulation No. 44 (Child Restraint Systems)	(b)
27	CI	17	E	Enhanced Child Restraint Systems (Regulation No. 129) - Draft brochure	(a)
28	France	17	E	Enhanced Child Restraint Systems (Regulation No. 129) - Booster Seats and Booster Cushions	(a)
29	CI	22(a)	E	(CI) EuroNCAP results	(c)
30	OICA	3(a)		UN GTR No. 9 (Pedestrian safety) - Effects of bumper test area determination using the old vs. the new method	(a)

<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
31/Rev.1	The Netherlands	17	E	Proposal for Supplement 4 to Regulation No. 129 (i-Size Enhanced Child Restraint Systems)	(d)
32	OICA	6	E	Regulation No. 14 (Safety-belt anchorages) Proposal for the 08 series of amendments	(b)
33	Australia	22(h)	E	Proposal for Supplement 1 to the Regulation on Pole Side Impact in its original version and Proposal for Supplement 1 to the 01 series of amendments to the Regulation on Pole Side Impact	(d)
34	Republic of Korea	22(a)	E	2014 KNCAP Updated Status	(c)
35	CLEPA	7	E	Regulation No. 16 - ISOFIX fixture	(a)
36	France	18	E	Hybrid III 5th percentile adult female performance requirements	(a)
37	Germany	22(f)	E	IWG on the harmonisation of the specifications of the 3-D H-point machine	(a)
38	EC	3(a)	E	Proposal of amendments to ECE/TRANS/WP.29/GRSP/2014/17	(a)
39	EC	3(a)	E	Proposal of amendments to ECE/TRANS/WP.29/GRSP/2014/30	(b)
40	EC	16	E	Proposal of amendments to ECE/TRANS/WP.29/GRSP/2014/31	(a)
41	EC	16	E	Proposal of amendments to ECE/TRANS/WP.29/GRSP/2014/32	(b)
42	Republic of Korea	7	E	Proposal of mandatory installation of SBR on the backseat of passenger vehicles (Regulation No. 16 Safety-belts)	(a)

*Notes:*

- (a) Consideration completed or superseded.
- (b) Continue consideration at the next session with an official symbol.
- (c) Continue consideration at the next session as informal document.
- (d) Adopted and to be submitted to WP.29.

## Annex II

### Draft amendments to Regulation No. 14 (Safety-belt anchorages)

#### Amendments adopted to ECE/TRANS/WP.29/2014/34 (see para. 14 of this report)

...

*Paragraph 5.3.8.7., amend to read:*

"5.3.8.7. Convertible vehicles as defined in **paragraph 2.9.1.5.** of the Consolidated Resolution on the Construction of Vehicles (**R.E.3**) with more than one seat row shall be fitted with at least two ISOFIX low anchorages. In case where an ISOFIX top tether anchorage is provided on such vehicles, it shall comply with the suitable provisions of this Regulation."

*Insert new paragraph 5.3.8.8., to read:*

"5.3.8.8. If a vehicle is only equipped with one seat position per row, only one ISOFIX position is required in the passenger position. **In case where an ISOFIX top tether anchorage is provided on such vehicles, it shall comply with the suitable provisions of this Regulation.** However where it is not possible to install even the smallest forward-facing ISOFIX fixture (as defined in Regulation No. 16, Appendix 2, of Annex 17) in the passenger seating position, then no ISOFIX position shall be required, provided that a child restraint system is **specified** for that vehicle."

...

## Annex III

### **Draft amendments to Regulation No. 29 (Cabs of commercial vehicles)**

#### **Amendments adopted to ECE/TRANS/WP.29/GRSP/2014/4 (see para. 24 to this report)**

*Paragraph 5.3.1.*, amend to read:

"5.3.1. During the tests ... chassis frame by standard fixture attachments **and does not unintentionally move, shift or rotate about the attachment points.**"

#### **Amendments adopted to ECE/TRANS/WP.29/GRSP/2014/29 (see para. 25 to this report)**

*Annex 3,*

...

*Paragraph 7.3.3.1.*, amend to read:

"7.3.3.1. The striking face ... Either the impactor or the cab may be tilted. If the **impactor is a pendulum**, the cab shall not be tilted **and shall be installed in a horizontal position.**"

## Annex IV

### Draft amendments to Regulation No. 100 (Battery electric vehicle safety)

#### Adopted on the basis of GRSP-56-17 (see para. 31 of this report)

*Paragraphs 5. to 5.1.1.3., amend to read:*

- "5. Specifications and tests
- 5.1. Protection against electrical shock
 

These electrical safety requirements apply to high voltage buses under conditions where they are not connected to external high voltage power supplies.
- 5.1.1. Protection against direct contact
 

**Live parts shall be protected against direct contact and shall comply with paragraphs 5.1.1.1. and 5.1.1.2. Barriers, enclosures, solid insulators and connectors shall not be able to be opened, separated, disassembled or removed without the use of tools.**

**However, connectors (including the vehicle inlet) are allowed to be separated without the use of tools, if they meet one or more of the following requirements:**

  - (a) They comply with paragraphs 5.1.1.1. and 5.1.1.2. when separated, or
  - (b) They are located underneath the floor and are provided with a locking mechanism, or
  - (c) They are provided with a locking mechanism. Other components, not being part of the connector, shall be removable only with the use of tools in order to be able to separate the connector, or
  - (d) The voltage of the live parts becomes equal or below dc 60 V or equal or below ac 30 V (rms) within 1 s after the connector is separated.
- 5.1.1.1. For protection of live parts inside the passenger compartment or luggage compartment, the protection degree IPXXD shall be provided.
- 5.1.1.2. For protection of live parts in areas other than the passenger compartment or luggage compartment, the protection degree IPXXB shall be **satisfied.**"

*Paragraphs 5.1.1.4. to 5.1.1.5.3., renumber as paragraphs 5.1.1.3. to 5.1.1.4.3.*

**Adopted on the basis of GRSP-56-18 (see para. 31 of this report)**

*Paragraph 5.1. to 5.1.1.3., amend to read:*

- "5.1. Protection against electrical shock
- These electrical safety requirements apply to high voltage buses under conditions where they are not connected to external high voltage power supplies.
- 5.1.1. Protection against direct contact
- Protection against direct contact with live parts is also required for vehicles equipped with any REESS type approved under Part II of this Regulation.
- Live parts shall be protected against direct contact and** shall comply with paragraphs 5.1.1.1. and 5.1.1.2. **Barriers, enclosures, solid insulators and connectors** shall not be able to be opened, **separated**, disassembled or removed without the use of tools.
- However, connectors (including the vehicle inlet) are allowed to be separated without the use of tools, if they meet one or more of the following requirements:**
- (a) **They comply with paragraphs 5.1.1.1. and 5.1.1.2. when separated, or**
  - (b) **They are located underneath the floor and are provided with a locking mechanism, or**
  - (c) **They are provided with a locking mechanism. Other components, not being part of the connector, shall be removable only with the use of tools in order to be able to separate the connector, or**
  - (d) **The voltage of the live parts becomes equal or below dc 60 V or equal or below ac 30 V (rms) within 1 s after the connector is separated.**
- 5.1.1.1. For protection of live parts inside the passenger compartment or luggage compartment, the protection degree IPXXD shall be provided.
- 5.1.1.2. For protection of live parts in areas other than the passenger compartment or luggage compartment, the protection degree IPXXB shall be **satisfied**."

*Paragraphs 5.1.1.4. to 5.1.1.5.3., renumber as paragraphs 5.1.1.3. to 5.1.1.4.3.*

## Annex V

### Draft amendments to Regulation No. 129 (Enhanced Child Restraint Systems)

Adopted on the basis of GRSP-56-31-Rev.1 (see para. 35 of this report)

*Paragraph 6.2.1.6., amend to read:*

- "6.2.1.6. All straps of the restraint shall be so placed that they cannot cause discomfort to the wearer in normal use or assume a dangerous configuration. **Y-shaped belts are not permitted on forward facing Enhanced Child Restraint Systems and may only be used in dedicated rearward facing and or lateral facing Enhanced Child Restraint Systems (carrycots).** The distance between the shoulder-straps in the vicinity of the neck should be at least the width of the neck of the appropriate dummy."

## Annex VI

### Amendments to new Regulation on electric vehicles of category L

#### Amendments adopted to ECE/TRANS/WP.29/GRSP/2014/11 (see para. 38 of this report)

##### *Contents*

*Paragraph 12.*, shall be deleted.

*Annex 8D*, amend to read:

"8D Mechanical **shock**"

##### *Text of the Regulation*

*Paragraphs 1. to 1.2.*, amend to read:

#### "1. Scope

**This Regulation does not cover post-crash safety requirements of road vehicles.**

1.1. Part I: Safety requirements with respect to the electric power train of vehicles of **category L**<sup>1</sup> with a maximum design speed exceeding 6 km/h, equipped with one or more traction motor(s) operated by electric power and not permanently connected to the grid, as well as their high voltage components and systems which are galvanically connected to the high voltage bus of the electric **power train**.

1.2. **Part II:** Safety requirements with respect to the Rechargeable Energy Storage System (REESS) of vehicles of **category L** with a maximum design speed exceeding 6 km/h, equipped with one or more traction motors operated by electric power and not permanently connected to the grid.

Part II of this Regulation does not apply to REESS(s) whose primary use is to supply power for starting the engine and/or lighting and/or other vehicle auxiliaries systems."

*Insert a new paragraph 5.1.3.3.*, to read:

##### "5.1.3.3. Fuel cell vehicles

**If the minimum isolation resistance requirement cannot be maintained over time, then protection shall be achieved by any of the following:**

- (a) **Double or more layers of solid insulators, barriers or enclosures that meet the requirement in paragraph 5.1.1. independently;**

---

<sup>1</sup> As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.2, para. 2. - [www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html](http://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html)



- (b) **On-board isolation resistance monitoring system together with a warning to the driver if the isolation resistance drops below the minimum required value. The isolation resistance between the high voltage bus of the coupling system for charging the REESS and the electrical chassis need not be monitored, because the coupling system for charging is only energized during charging of the REESS. The function of the on-board isolation resistance monitoring system shall be confirmed as described in Annex 5."**

*Paragraph 5.1.3.3., renumber as 5.1.3.4.*

*Paragraph 5.2.3., amend to read:*

"5.2.3. Protection against electrolyte spills

Vehicles ... functional operation.

When the REESS is **in the put upside-down position**, no electrolyte shall spill."

*Paragraph 6.4.2., amend to read:*

"6.4.2. Mechanical **shock**"

*Paragraph 6.4.2.2.2., amend to read:*

"6.4.2.2.2. For a high voltage REESS the isolation resistance of the tested-device shall ensure at least 100  $\Omega$ /Volt for the whole REESS measured after the test in accordance with Annex 4B to this **Regulation**."

*Paragraph 12., shall be deleted.*

*Annex 6, Part 1,*

*Item 3.4.3., amend to read:*

"3.4.3. **Rated capacity (Ah):** ....."

*Insert new items 4. to 4.6., to read:*

"4. **Fuel Cell (if any)**

4.1. **Trade name and mark of the fuel cell:** .....

4.2. **Types of fuel cell:** .....

4.3. **Nominal voltage (V):** .....

4.4. **Number of cells:** .....

4.5. **Type of cooling system (if any):** .....

4.6. **Max Power(kW):** ....."

*Items 4. to 7.4.2., renumber as items 5. to 8.4.2.*

*Annex 6, Part 2,*

*Item 1.4.3., amend to read:*

"1.4.3. **Rated capacity (Ah):** ....."

*Annex 6, Part 3**Item 2.3.2., amend to read:*

"2.3.2.       **Rated** capacity (Ah): ....."

*Annex 8A, paragraph 3.2., amend to read:*

"3.2.        Test procedure

...

At the request of the manufacturer a vibration test profile determined by the vehicle-manufacturer, verified for the vehicle application and agreed with the Technical Service may be used as a substitute for the frequency - acceleration correlation of table 1 or table 2. The approval of a REESS tested according to this condition shall be limited to approvals for a specific vehicle type.

After the vibration...."

*Annex 8C, paragraph 2.1., amend to read:*

"2.1.        General test conditions

The following conditions shall apply to the removed REESS at the start of the test:

(a) **Adjust the SOC to at least 90 per cent of the rated capacity as specified in the Annex 6 Part 1, paragraph 3.4.3. or Annex 6 Part 2 paragraph 1.4.3. or Annex 6 Part 3 paragraph 2.3.2.**

(b)    The test ..."

*Annex 8d, the title, amend to read:*

"Mechanical **shock**"

*Annex 9B,**Paragraphs 1. and 2., amend to read:*

"1.        General

The isolation resistance shall be measured after the water resistance performance test has been **conducted**.

2.        Procedure

...

(b)    subsequently, apply 500V DC between all **high voltage inputs and the vehicle's exposed conductive parts/electrical chassis** if present to measure the **isolation** resistance."

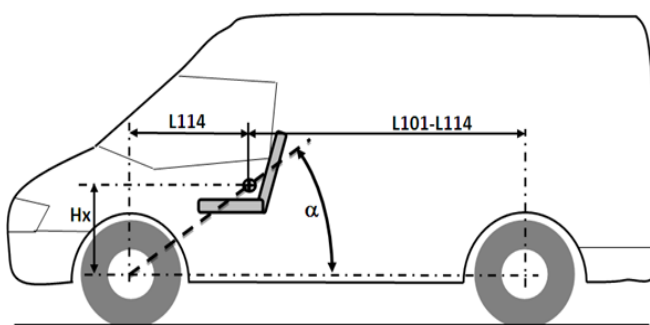
## Annex VII

### Draft amendments to the new Regulation on Pole Side Impact (ECE/TRANS/WP.29/2014/79)

Adopted on the basis of GRSP-56-33 (see para. 48 of this report)

Paragraph 1.1., amend to read:

- "1.1. This Regulation applies to:
- (a) Category M<sub>1</sub> vehicles **with a gross vehicle mass of up to 3500 kg;** and
  - (b) Category N<sub>1</sub> vehicles where the **acute** angle alpha ( $\alpha$ ), measured **between a horizontal plane passing through the centre of the front axle and an angular transverse plane passing through the centre of the front axle and the R-point of the driver's seat, as illustrated below**, is less than 22.0 degrees; or the ratio between the distance from the driver's R-point to the centre of the rear axle (L101-L114) and the centre of the front axle and the driver's R-point (L114) is less than 1.30.<sup>2</sup>



<sup>2</sup> As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.3, para. 2 - [www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html](http://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html)

## **Annex VIII**

### **Draft amendments to the new Regulation on Hydrogen and Fuel Cell Vehicles (ECE/TRANS/WP.29/2014/78)**

**Adopted on the basis of GRSP-56-25 (see para. 49 of this report)**

*Paragraph 7.1.1.2., amend to read:*

"7.1.1.2. Fuelling receptacle label: A label shall be affixed close to the fuelling receptacle; for instance inside a refilling hatch, showing the following information: fuel type (e.g. "CHG" for gaseous hydrogen), **MFP**, NWP, date of removal from service of containers."

## Annex IX

[English only]

## List of GRSP informal working groups

<i>Informal working group</i>	<i>Chair</i>	<i>Expiry date of the mandate [pending WP.29 decision]</i>	<i>Secretary</i>
Frontal Impact (FI)	Mr. Pierre Castaing (France) Phone : +33 1-69801750 Fax : +33 1-69801719 e-mail : pierre.castaing@utac.com	December 2014	
Harmonized side impact dummies	Ms. Marisol Medri (USA) Phone : +1 202 366 6987 Fax : +1 202 493 29 90 e-mail : marisol.medri@dot.gov	December 2015	
Head Restraints (GTR7-Phase 2)	Mr. Bernard Frost (UK) Phone : +44-(0)207 9442107 Fax : +44-(0)207 9449623 e-mail : bernie.frost@dft.gsi.gov.uk	December 2015	OICA
Child Restraint Systems (CRS)	Mr. Pierre Castaing (France) Phone : +33 1-69801750 Fax : +33 1-69801719 e-mail : pierre.castaing@utac.com	[December 2015]	
Pedestrian Safety (GTR9-Phase 2)	Mr. Richard Damm (Germany) Tel.: +49 (0) 228 99 300 4302 Fax: +49 (0) 228 99 300 807 4302 e-mail: richard.damm@bmvs.bund.de	November 2015	
Electric Vehicle Safety (EVS)	Mr. N. Nguyen (USA), (vice-chaired by the European Union and China) Phone: +1 202 366 69 34 Fax: +1 202 493 29 90 e-mail : nha.nguyen@dot.gov	December 2015	Japan
Rechargeable Energy Storage Systems (REESS)	Mr. G. Kellermann (Germany) Phone : +49 228 300 43 04 Fax : +49 228 300 807 43 04 e-mail : gerd.kellermann@bmvs.bund.de	June 2015	OICA