Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations
Working Party on Passive Safety
Fiftieth session
Geneva, 6–9 December 2011


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I. Attendance

1. The Working Party on Passive Safety (GRSP) held its fiftieth session in Geneva from 6 to 9 December 2011, chaired by Ms. M. Versailles (United States of America). 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 and Amend.1): Australia; Belgium; Canada; China; Czech Republic; France; Germany; Hungary; India; Italy; Japan; Netherlands; Norway; Poland; Republic of Korea; Russian Federation; Serbia; Spain; Sweden; Switzerland; United Kingdom of Great Britain and Northern Ireland 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); European Enhanced Vehicle-Safety Committee (EEVC); Foundation for the Automobile and Society (FIA Foundation); International Organization of Motor Vehicle Manufacturers (OICA) and International Motorcycle Manufacturers Association (IMMA).

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

II. Adoption of the agenda (agenda item 1)

Documentation:  ECE/TRANS/WP.29/GRSP/2011/16
Informal document GRSP-50-10

3. GRSP considered and adopted the agenda (ECE/TRANS/WP.29/GRSP/2011/16) proposed for the fiftieth session with the new agenda items 19(d) to 19(i), 20 and 21 as well as the running order (GRSP-50-10). The list of GRSP informal working groups is contained in Annex VII to this report.

III. Global technical regulation No. 1 (Door locks and door retention components) (agenda item 2)

Documentation:  ECE/TRANS/WP.29/GRSP/2011/3
ECE/TRANS/WP.29/GRSP/2011/4
ECE/TRANS/WP.29/GRSP/2010/28
ECE/TRANS/WP.29/AC.3/18

4. GRSP considered ECE/TRANS/WP.29/GRSP/2011/3 (superseding ECE/TRANS/WP.29/GRSP/2010/28) and ECE/TRANS/WP.29/GRSP/2011/4 (final progress report) as the final consolidated proposal for amendments to the UN Global Technical Regulation (UN GTR) No. 1. GRSP noted that no further proposal was available aligning UN Regulation No. 11 to the UN GTR as a whole package (see para. 17). Accordingly, GRSP agreed to recommend ECE/TRANS/WP.29/GRSP/2011/3, and ECE/TRANS/WP.29/GRSP/2011/4, both not amended, to AC.3 for their establishment in the Global Registry. The secretariat was requested to submit the proposal and its final report to WP.29 and AC.3 at their June 2012 sessions, as draft Amendment 1 to UN GTR No. 1.
IV. Global technical regulation No. 7 (Head restraints) (agenda item 3)

**Documentation:** Informal documents GRSP-50-26, GRSP-50-27 and GRSP-50-31

5. The expert from the United Kingdom, Chair of the informal working group on UN GTR No. 7 Phase 2, informed GRSP on the work progress of the group:

   (a) The group is expecting to submit an informal document for discussion at the May 2012 session of GRSP, concerning the regulatory text of GTR No. 7 Phase 2, including the Biofidelic Rear Impact Dummy II (BioRID II), namely calibration, seating position, etc.

   (b) The definition of injury criteria progressed well. Nevertheless, concerns remain regarding the reproducibility of the rotational movement of the dummy's head compared to the cadaver.

   (c) A method to measure the physical height of the head restraint is expected to be submitted as an informal document to the May 2012 session of GRSP.

6. The expert from Japan complemented this information by introducing the third status report of the informal working group (GRSP-50-31). The expert from the United Kingdom invited GRSP experts to provide comments to be incorporated in an updated version of the status report to be submitted to the March sessions of WP.29 and AC.3. He also informed GRSP that the next meeting of the informal working group was planned for in London at the beginning of March 2012.

7. GRSP noted that WP.29, at its November 2011 session while discussing the 1958 Agreement, agreed with the approach of indexing the information for test devices as an annex to the Consolidated Resolution on the Construction of Vehicles (R.E.3.). Accordingly, the expert from the United Kingdom introduced, for information, a first proposal (GRSP-50-26 and GRSP-50-27) on the basis of some BioRID II technical data. The expert from Germany expressed concerns on the possible transposition of a future UN GTR on the same subject into the 1958 Agreement. GRSP recommended experts to send further comments in due time to the expert from the United Kingdom to allow him to prepare an updated proposal to the March 2012 session of WP.29 for consideration.

V. Global technical regulation No. 9 (Pedestrian safety) (agenda item 4)

A. Phase 2 of the global technical regulation

**Documentation:** ECE/TRANS/WP.29/GRSP/2011/13

Informal documents GRSP-50-29 and GRSP-50-30

8. The expert from Germany, Chair of the informal working group on UN GTR No. 9 Phase 2, introduced the terms of references and operating principles (GRSP-50-29) and the first progress report (GRSP-50-30) of the informal working group on UN GTR No. 9 Phase 2. GRSP noted that the main objective of the group should be the introduction of the flexible pedestrian legform (Flex-PLF) into the UN GTR and into the draft UN Regulation on pedestrian safety in the same time. He also asked to GRSP experts to provide information on leg injuries to the informal working group. He finally informed GRSP about the intention of the informal working group to submit for consideration, to GRSP a draft proposal at its May 2013 session. GRSP adopted the terms of reference of the informal working group (contained in GRSP-50-29), as reproduced in Annex II to this report and
agreed to seek the consent from WP.29 at its March 2012 session. GRSP also agreed to keep ECE/TRANS/WP.29/GRSP/2011/13 on the agenda of its future sessions, awaiting the outcome of the informal working group on UN GTR No. 9 Phase 2.

**B. Proposal for Amendment 2**

*Documentation: ECE/TRANS/WP.29/2011/148  
Informal document GRSP-50-32*

9. GRSP noted that the Executive Committee of the 1998 Agreement (AC.3.) at its November 2011 session agreed to develop an amendment (ECE/TRANS/WP.29/2011/148) to UN GTR No. 9 (see ECE/TRANS/WP.29/1093, para. 128). GRSP noted that ECE/TRANS/WP.29/2011/148 also included the concrete proposal of amendment to the UN GTR. The expert from the Netherlands introduced the final status report (GRSP-50-32) complementing the proposal. However, concerning the justification for changes of ECE/TRANS/WP.29/2011/148, the expert from the EC expressed disagreement on paragraphs 5 to 7, agreed on paragraph 8 and raised a study reservation on paragraphs 10 and 12.

10. GRSP agreed to resume discussion on this agenda item at its May 2012 session and requested the secretariat to distribute GRSP-50-32 with an official symbol.

**VI. Side impact (agenda item 5)**

**A. Draft global technical regulation on Pole Side Impact**

*Documentation: ECE/TRANS/WP.29/2011/87  
Informal document GRSP-50-20*

11. The expert from Australia, on behalf of the Chair of the informal working group on a UN GTR on pole side impact, introduced the second progress report and the revised terms of references of the group (GRSP-50-20). He informed GRSP that the group was still working in close conjunction with the informal working group on harmonization of side impact dummies, which was completing the work necessary for the WorldSID 50th percentile male and 5th percentile female for their incorporation in the draft UN GTR. GRSP adopted the revised terms of reference of the informal working group (contained in GRSP-50-20), as reproduced in Annex III to this report and agreed to seek consent from WP.29 at its March 2012 session.

**B. Harmonization of side impact dummies**

12. The expert from the United States of America informed GRSP about the outcome of the last meeting of the informal working group on the harmonization work of the World Side Impact Dummy (WorldSID) held in Seoul in October 2011. She announced the completion of a concrete proposal on the 50th percentile dummy within the expected schedule. She added that despite unforeseeable delays the group would also finalize a concrete proposal concerning the 5th percentile dummy in due time. GRSP agreed to resume discussion on this agenda item at its December 2012 session on the basis of new information to be provided by the informal working group.
VII. Crash compatibility (agenda item 6)

13. No new information was provided for this agenda item.

VIII. Hydrogen and fuel cell vehicles (agenda item 7)

Documentation: ECE/TRANS/WP.29/GRSP/2011/33
Informal document GRSP-50-19-Rev.1

14. The expert from the United States of America introduced draft UN GTR on safety of hydrogen and fuel cell vehicles (ECE/TRANS/WP.29/GRSP/2011/33) prepared by the special group safety (SGS). The proposal received some comments such as a better defining of the scope. GRSP noted that more time was needed by the SGS group to gather comments and finalize the proposal. Accordingly, GRSP agreed to seek consent for a six months extension of the mandate of the informal working group at the March 2012 sessions of WP.29 and AC.3, expecting the submission of a revised proposal for final review at the May 2012 session of GRSP. Experts were invited to provide comments on the proposal (GRSP-50-19-Rev.1 superseding ECE/TRANS/WP.29/GRSP/2011/33) to the expert of the United States of America, before the deadline for submission of official documents to the May 2012 session of GRSP.

15. Finally, the Chair of GRSP recalled the recommendation made during the December 2010 session of GRSP (see ECE/TRANS/WP.29/GRSP/48, para. 37) to all the Chairs of the informal working groups to ensure traceability of expert mandates for their participation in the meetings.

IX. Regulation No. 11 (Door latches and hinges) (agenda item 8)

Documentation: ECE/TRANS/WP.29/GRSP/2011/17

16. The expert from OICA introduced ECE/TRANS/WP.29/GRSP/2011/17, aimed at covering the risk of ejection of vehicle occupants in the scope of the UN Regulation and correcting the transitional provisions. GRSP adopted ECE/TRANS/WP.29/GRSP/2011/17 not amended and requested the secretariat to submit the proposal to WP.29 and AC.1, for consideration and vote at their June 2012 sessions as draft Supplement 3 to the 03 series of amendments to UN Regulation No. 11.

17. Finally, GRSP agreed to continue consideration of this agenda item on the basis of a possible proposal aligning the Regulation with the draft Amendment 1 to UN GTR No. 1 (ECE/TRANS/WP.29/GRSP/2011/3).

X. Regulation No. 14 (Safety-belt anchorages) (agenda item 9)

Documentation: ECE/TRANS/WP.29/GRSP/2011/22
Informal documents GRSP-50-05-Rev.1, GRSP-50-17 and GRSP-50-23

18. GRSP noted GRSP-50-05-Rev.1, tabled by the experts from Belgium and Germany to solve errors in the current text of the Regulation concerning the anchorage angles ($\alpha_1$ and $\alpha_2$) and the seating reference point (R-point). GRSP noted that the proposal had design implication and agreed to continue discussion at its May 2012 session. The secretariat was requested to distribute GRSP-50-05-Rev.1 with an official symbol.
19. The expert from Spain introduced a proposal (GRSP-50-17) to allow the installation of safety-belt anchorages whose effective upper anchorage point is changing to fit smaller occupants such as children transported on buses and coaches. The expert from Germany argued that such systems were already present on the market and some of these were introducing risks for occupants by assuming a dangerous configuration (GRSP-50-23). GRSP agreed to resume consideration on this subject at its May 2012 session, on the basis of a revised proposal jointly prepared by the experts from Germany, Netherlands and Spain. GRSP also agreed to keep GRSP-50-23 as a reference on the agenda of its next session.

20. The expert from France, Chair of the informal working group on Child Restraints Systems (CRS), introduced ECE/TRANS/WP.29/GRSP/2011/22 prepared by his group to align UN Regulation No. 14 with the provisions of draft Regulation on child restraint systems (CRS). GRSP adopted ECE/TRANS/WP.29/GRSP/2011/22, not amended. The secretariat was requested to submit it to WP.29 and AC.1, for consideration and vote at their June 2012 sessions for the time being as draft [Supplement 4 to the 07 series of amendments]. GRSP also agreed to recommend its adoption to WP.29 and AC.1 as a full package with the draft UN Regulation on CRS (ECE/TRANS/WP.29/GRSP/2011/21) and the corresponding amendment to UN Regulation No. 16 (ECE/TRANS/WP.29/GRSP/2011/23).

XI. Regulation No. 16 (Safety-belts) (agenda item 10)

Documentation: ECE/TRANS/WP.29/GRSP/2011/23
Informal documents GRSP-50-02 and GRSP-50-15

21. The expert from the Netherlands introduced GRSP-50-02 in order to provide an installation procedure for CRS that takes into account the position of the seat in front of that to be tested. The expert from OICA raised a study reservation on the proposal. Finally, GRSP agreed to resume consideration on this matter at its May 2012 session on the basis of a revised proposal jointly prepared by the experts from the Netherlands and OICA.

22. The expert from Spain introduced GRSP-50-15, to allow the installation of universal ISOFIX rearward facing child restraint systems as defined in UN Regulation No. 44. GRSP did not support GRSP-50-15 because of conflicts with the text of the draft UN Regulation on CRS and agreed to remove this matter from the agenda of its May 2012 session.

23. The Chair of the informal working group on CRS, introduced ECE/TRANS/WP.29/GRSP/2011/23 prepared by his group to match the provisions of UN Regulation No. 16 with those of draft UN Regulation on CRS. GRSP adopted ECE/TRANS/WP.29/GRSP/2011/23, not amended. The secretariat was requested to submit it to WP.29 and AC.1, for consideration and vote at their June 2012 sessions for the time being as draft [Supplement 3 to the 06 series of amendments] making the same recommendation for its adoption by WP.29 and AC.1 as per UN Regulation No. 14 (see para. 20).
XII. Regulation No. 17 (Strength of seats) (agenda item 11)

Documentation: ECE/TRANS/WP.29/GRSP/2009/15
ECE/TRANS/WP.29/GRSP/2009/24
(ECE/TRANS/WP.29/GRSP/2011/10)
Informal document GRSP-50-11

24. The expert from Japan introduced GRSP-50-11 amending ECE/TRANS/WP.29/GRSP/2011/10 on new provisions for folding seat. However, GRSP noted that ECE/TRANS/WP.29/GRSP/2011/10 needed revision (see ECE/TRANS/WP.29/GRSP/49, para. 24). GRSP agreed to resume discussion of this subject on the basis of a new proposal jointly prepared by the experts from Germany, Japan and OICA.

25. Finally, GRSP agreed to keep ECE/TRANS/WP.29/GRSP/2009/15 and ECE/TRANS/WP.29/GRSP/2009/24 on the agenda of its future sessions, awaiting the outcome of the informal working group on UN GTR No. 7 Phase 2.

XIII. Regulation No. 22 (Protective helmets) (agenda item 12)

26. The expert from the FIA Foundation announced his intention to suspend the initiative of a proposal concerning basic requirements for light-weight protective helmets to fit the needs of some Asian countries until new information would be available. GRSP agreed to keep this item in the agenda of its future session awaiting a final decision by the expert from the FIA Foundation.

XIV. Regulation No. 44 (Child restraint systems) (agenda item 13)

Documentation: ECE/TRANS/WP.29/GRSP/2011/25
ECE/TRANS/WP.29/GRSP/2011/26
ECE/TRANS/WP.29/GRSP/2011/27
ECE/TRANS/WP.29/GRSP/2011/28
ECE/TRANS/WP.29/GRSP/2011/29
ECE/TRANS/WP.29/GRSP/2011/30
ECE/TRANS/WP.29/GRSP/2011/31
ECE/TRANS/WP.29/GRSP/2011/32
Informal documents GRSP-50-08, GRSP-50-09, GRSP-50-14, GRSP-50-16, GRSP-50-21, GRSP-50-25, GRSP-50-33-Rev.1 and GRSP-50-34

27. GRSP adopted ECE/TRANS/WP.29/GRSP/2011/25 and ECE/TRANS/WP.29/GRSP/2011/31, both not amended, ECE/TRANS/WP.29/GRSP/2011/26 and ECE/TRANS/WP.29/GRSP/2011/28, both as amended by Annex IV to this report, and GRSP-50-14 as reproduced in Annex IV to this report. The secretariat was requested to submit all the proposals to WP.29 and AC.1, for consideration and vote at their June 2012 session as draft Supplement 5 to the 04 series of amendments to UN Regulation No. 44.

28. GRSP did not support ECE/TRANS/WP.29/GRSP/2011/26, that matched the corresponding proposal of amendments to UN Regulation No. 16 (see para. 22 above) and postponed discussions on ECE/TRANS/WP.29/GRSP/2011/27 awaiting a revised wording of paragraph 6.1.5. Finally, the expert from Spain withdrew

29. The expert from CLEPA introduced GRSP-50-08 on inflatable CRS, to provide information on this system sold in the European market and in his opinion allegedly complying with UN Regulation No. 44. He showed a video presentation (GRSP-50-25) on the risks (i.e. sub-marining of CRS occupants) introduced by the system. The expert from the Czech Republic argued (GRSP-50-21) that his administration had been granting successful type approvals to inflatable CRS since 2008. Accordingly, the expert from the Netherlands made a proposal (GRSP-50-33-Rev.1) to prevent different interpretations of the lap belt position during dynamic test of CRS secured by adult safety belts, such as inflatable CRS. GRSP agreed to resume consideration on this subject at its May 2012 session and requested the secretariat to distribute GRSP-50-33-Rev.1 with an official symbol.

30. The expert from CLEPA provided further information to GRSP (GRSP-50-09 and GRSP-50-25) on the so called belt guide device and test results of this system, as a follow-up of the May 2011 session of GRSP (see ECE/TRANS/WP.29/GRSP/49, para. 28). GRSP noted that the Hungarian administration granted a type approval to this device according to Regulation No. 44. However, it was also noted that the device was banned in several countries. The expert from Hungary informed GRSP that his administration had started an action to withdraw the approval but that it was incomplete due to a legal challenge by the manufacturer. The guidance provided in ECE/TRANS/WP.29/1059 (resolving interpretation issues and requirements for the Technical Services in the framework of the 1958 Agreement) was noted and GRSP agreed that it could offer clarity regarding the technical requirements associated with a particular UN Regulation to assist in disputes among technical services of Contracting Parties to the Agreement. Concerning the belt guide device, GRSP agreed on the principle (GRSP-50-34) that a guide strap was meant as a part of CRS and therefore could not be individually approved as a CRS under UN Regulation No. 44. Moreover, GRSP expressed concerns on the safety of this device. Finally, GRSP agreed to continue discussion on this matter on the basis of information on possible actions taken by competent Type Approval Authority of Contracting Parties to the Agreement on this issue.

XV. Regulation No. 94 (Frontal collision) (agenda item 14)

Documentation: ECE/TRANS/WP.29/GRSP/2011/24
Informal documents GRSP-50-01, GRSP-50-03 and GRSP-50-28

31. The Chair of the informal working group on Frontal collision introduced ECE/TRANS/WP.29/GRSP/2011/24 through a presentation (GRSP-50-01) on the new terms of reference of the informal working group. GRSP adopted ECE/TRANS/WP.29/GRSP/2011/24 as reproduced in Annex V to this report and sought the consent of WP.29 at its March 2012 session.

32. GRSP noted GRSP-50-03 tabled by the expert from the Netherlands, introducing test requirements for vehicles equipped with automatically activated door locking systems. The document received some comments and GRSP agreed to resume discussion on this matter on the basis of a revised proposal prepared by the expert from the Netherlands.

33. The expert from FIA Foundation informed GRSP on the results of the second Latin American New Car Assessment Programme (LANCAP) recently held. He informed that as a conclusion of the second phase of the programme, LANCAP was promoting the
mandatory type approval of vehicles according to UN Regulation No. 94 as well as the mandatory use of type approved CRS to governments of Latin American countries.

XVI. Regulation No. 100 (Construction and functional safety of battery electric vehicles) (agenda item 15)

**Documentation:** Informal documents GRSP-50-06, GRSP-50-07 and GRSP-50-24

34. The expert from Germany, Chair of the group of interested experts on Rechargeable Energy Storage Systems (REESS), introduced the last progress report (GRSP-50-24) of the group. He presented the draft proposal of amendments to UN Regulation No. 100 (GRSP-50-06), aimed at extending the scope of the current UN Regulation and incorporating additional requirements concerning the REESS. He announced that the next meeting of the group was scheduled for 10 to 12 January 2012 within the premises of the European Automobile Manufacturers’ Association (ACEA) in Brussels. The proposal received some comments as reflected in GRSP-50-07, tabled by the expert from the Netherlands, proposing broader requirements covering electric vehicles of category L. The expert from the EC welcomed the proposal and confirmed that it was in line with the draft EU Regulation on vehicle functional safety requirements (RVFSR). GRSP agreed to address GRSP-50-07 to the REES group and recommended that this group transmit a final consolidated proposal to the secretariat before the deadline for submission of official documents to the May 2012 session of GRSP.

XVII. Buses and coaches (agenda item 16)

**Documentation:** Informal documents GRSP-50-17 and GRSP-50-23

35. GRSP concluded the discussion on this matter under agenda item 9 (see paragraph 19 above).

XVIII. Draft Regulation on pedestrian safety (agenda item 17)

A. Proposal for Supplement 1 to the draft Regulation

**Documentation:** ECE/TRANS/WP.29/GRSP/2011/18
                              ECE/TRANS/WP.29/GRSP/2011/19

36. With reference to the discussion under agenda item 4(b) (see paras. 8–10), GRSP agreed to defer discussion on this agenda item to its May 2012 session, awaiting the adoption of ECE/TRANS/WP.29/2011/148.

B. Proposal for the 01 series of amendments to the draft Regulation

**Documentation:** ECE/TRANS/WP.29/GRSP/2011/14,
                              ECE/TRANS/WP.29/GRSP/2011/20

37. GRSP agreed to defer discussion on the proposal to introduce the Flex-PLI into the draft UN Regulation (ECE/TRANS/WP.29/GRSP/2011/14) to its May 2012 session awaiting the outcome of the informal working group. Finally, it was agreed to keep
ECE/TRANS/WP.29/GRSP/2011/14, ECE/TRANS/WP.29/GRSP/2011/20 on the agenda of future sessions of GRSP.

XIX. Draft new Regulation on child restraint systems (agenda item 18)

Documentation: ECE/TRANS/WP.29/GRSP/2011/21
Informal documents GRSP-50-18 and GRSP-50-22-Rev.1

38. GRSP considered the latest revision of the draft UN Regulation proposed by the informal working group on CRS (GRSP-50-22-Rev.1 superseding ECE/TRANS/WP.29/GRSP/2011/21 and GRSP-50-18).

39. GRSP adopted ECE/TRANS/WP.29/GRSP/2011/21, as amended by Annex VI to this report. The secretariat was requested to submit the proposal as a new draft UN Regulation for consideration and vote to WP.29 and AC.1 at their June 2012 sessions, as a package together with the corresponding amendments to UN Regulation Nos. 14 and 16 (see paragraphs 20 and 23).

40. Finally, GRSP noted that the secretariat would make publicly available prior to the June 2012 session of WP.29, the full set of data of Q dummies, pending a disclaimer to be agreed upon with the dummy manufacturer. Referring to the next meeting of the informal working group, scheduled on 1 February 2012, GRSP recommended that the informal working group focus efforts on examining these dummy data and solicited the participation of experts keen on this matter.

XX. Other business (agenda item 19)

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

41. No new information was provided.

B. 1997 Agreement (Inspections) – Development of Rule No. 2

42. No new information was provided.

C. Intelligent Transport Systems (ITS)

43. GRSP noted the UN policy segment on ITS scheduled to be held as side event of ITC on 28 February 2012 in Palais des Nations, Geneva and invited its experts to participate in the event.

(www.unece.org/trans/theme_its/un_policy_segment.html)

D. Regulation No. 95 (Lateral collision)

Documentation: Informal document GRSP-50-04-Rev.1

44. Referring to the issue introduced under agenda item 14 (see para. 32 above), the expert from the Netherlands introduced a similar proposal (GRSP-50-04-Rev.1) addressing UN Regulation No. 95. GRSP agreed to resume discussion on the basis of a revised proposal voluntarily prepared by the expert from the Netherlands.
E. Quiet Road Transport Vehicles (QRTV)

45. Referring to the AC.3 November 2011 session (see ECE/TRANS/WP.29/1093, para. 140) GRSP noted that the representatives of Japan and the United States of America had volunteered to be the technical sponsors. The US would chair the informal working group under GRB and develop a proposal of a UN GTR on quiet road transport vehicles. It was noted that GRSP experts were invited to participate in the work of the informal working group, as their expertise in crashworthiness issues was deemed necessary.

F. Proposal to develop a global technical regulation on electric vehicles

46. GRSP noted that the request of authorization from the US delegation to develop a UN GTR on electric vehicles received general support from AC.3 at its November 2011 session (see ECE/TRANS/WP.29/1093, para. 141).

G. Definition and acronyms in Regulations under GRSP responsibilities on the basis of an initiative of the Working Party on Pollution and Energy

47. GRSP was informed about the initiative of the Working Party on Pollution and Energy (GRPE) to list all definitions and acronyms present in the Regulations under its responsibility to avoid misconception when these were used in other Regulations. In this respect, GRSP noted that the RESS acronym (Rechargeable Energy Storage System), was changed by the group of interested experts on this subject to REESS to avoid overlap with Replacement Exhaust Silencing Systems (RESS) used by the Working Party on Noise (GRB).

48. GRSP agreed that: (i) each Chair of the informal working groups would list acronyms on subjects of their competency, (ii) the expert from EC would list those present in the current text of UN Regulations annexed to the 1958 Agreement and (iii) the expert from the United States of America would make a similar list concerning UN GTRs (1998 Agreement). Finally, it was agreed that these lists would be sent to the GRSP Chair by the end of April 2012 to be consolidated in a single document to be submitted to GRPE.

H. Collective amendments – Regulation Nos. 12, 94, 95 and 100

Documentation: Informal documents GRSP-50-12 and GRSP-50-13

49. The expert from Japan introduced GRSP-50-12 and GRSP-50-13 proposing further amendments concerning the tests of electric vehicles. GRSP agreed to continue discussion at its May 2012 session and requested the secretariat to distribute GRSP-50-12 and GRSP-50-13 with an official symbol.

I. Tributes

50. Learning that Ms. S. Meyerson, Ms. N. Enonler and Mr. F. V. West would no longer participate in future sessions of GRSP, the group acknowledged their valuable contribution to the work of GRSP and wished them all the best in their future activities.

XXI. Election of officers (agenda item 20)

51. 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
Ms. Mary. Versailles (United States of America) as Chair for the sessions of GRSP scheduled in the year 2012.

**XXII. Provisional agenda for the next session (agenda item 21)**

52. For its fifty-first session, scheduled to be held in Geneva from 21 (2.30 p.m.) to 25 (12.30 p.m.) May 2012, GRSP noted that the deadline for submission of official documents to the secretariat was 24 February 2012, twelve weeks prior to the session. Moreover, the following provisional agenda was adopted:

1. Adoption of the agenda.
2. Global Technical Regulation No. 1 (Door locks and door retention components).
3. Global Technical Regulation No. 7 (Head restraints).
4. Global Technical Regulation No. 9 (Pedestrian safety):
   (a) Phase 2 of the global technical regulation;
   (b) Proposal for Amendment 2.
5. Side impact:
   (a) Draft global technical regulation on Pole Side Impact:
   (b) Harmonization of side impact dummies.
7. Crash compatibility.
9. Regulation No. 11 (Door latches and hinges).
10. Regulation No. 14 (Safety-belt anchorages).
11. Regulation No. 16 (Safety-belts).
12. Regulation No. 17 (Strength of seats).
13. Regulation No. 22 (Protective helmets).
14. Regulation No. 44 (Child restraints systems).
15. Regulation No. 94 (Frontal collision).
16. Regulation No. 95 (Lateral collision).
17. Regulation No. 100 (Battery electric vehicle safety).
18. Buses and coaches.
19. Draft Regulation on pedestrian safety:
   (a) Proposal for Supplement 1 to the draft Regulation;
   (b) Proposal for the 01 series of amendments to the draft Regulation.
20. Draft new Regulation on child restraint systems.
22. Other business:
   (a) Exchange of information on national and international requirements on passive safety;
(b) 1997 Agreement (Inspections)–Development of draft Rule No. 2;
(c) Intelligent Transport Systems (ITS);
(e) Quiet Road Transport Vehicles (QRTV);
(g) Definition and acronyms in Regulations under GRSP responsibilities on the basis of an initiative of the Working Party on Pollution and Energy.
## Annex I

List of informal documents (GRSP-50-...) distributed without an official symbol during the session

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<thead>
<tr>
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<th>Transmitted by</th>
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<th>Language</th>
<th>Title</th>
<th>Follow-up</th>
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<td>Chair of Frontal Impact informal working group</td>
<td>14</td>
<td>E</td>
<td>50th GRSP Session status report of the Informal Working Group on Frontal Impact</td>
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<tr>
<td>02</td>
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<td>14</td>
<td>E</td>
<td>Proposal for amendments to UN Regulation No. 94 (Frontal collision)</td>
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<td>04- Rev.1</td>
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<td>19(d)</td>
<td>E</td>
<td>Proposal for amendments to UN Regulation No. 95 (Lateral collision)</td>
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<td>05- Rev.1</td>
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<td>Proposal for Supplement 4 to the 07 series of amendments to UN Regulation No. 14 (Safety-belt anchorages)</td>
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<td>Proposal to amendment to ECE/TRANS/WP.29/GRSP/2011/10 (Strength of seats (UN Regulation No. 17))</td>
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<td>Proposal for Supplement 5 to the 04 series of amendments to UN Regulation No. 44 (CRS)</td>
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<td>Proposal for amendments to i-size regulation</td>
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<td>5(a)</td>
<td>E</td>
<td>Second progress report of the informal working group on a pole side impact (PSI) UN GTR</td>
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<td>18 E</td>
<td>Amendments agreed by GRSP at its 50th session to ECE/TRANS/WP.29/GRSP/2011/21</td>
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<td>23</td>
<td>Germany</td>
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<td>3 E</td>
<td>Proposal for a protocol to manage drawings, calibration and maintenance procedures associated with test tools</td>
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<td>3 E</td>
<td>Proposal for a protocol to manage drawings, calibration and maintenance procedures associated with test tools (e.g.: Biorid dummy)</td>
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<td>FIA Foundation</td>
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<td>GRSP Informal working group UN GTR No. 9 (Pedestrian safety) – Phase 2 - WP.29 and GRSP Decisions Draft Operating Principles Draft Terms of Reference</td>
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<td>France and Germany</td>
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<td>E</td>
<td>Supplement information on documents GRSP-50-09 (belt guide device) and GRSP-50-28</td>
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</table>

**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

Terms of reference of the informal working group on Pedestrian Safety gtr No. 9 – Phase 2

Adopted text based on GRSP-50-29 (see para. 8 of this report)

A. Introduction

1. GRSP agreed to set up an informal working group on pedestrian safety Phase 2 in order to further develop proposals to amend UN GTR No. 9 on introducing the Flexible Pedestrian Legform Impactor (Flex-PLI) (ECE/TRANS/WP.29/AC.3/24, ECE/TRANS/WP.29/1079, para. 101).

2. The Flex-PLI Technical Evaluation Group (Flex-TEG) has conducted technical evaluation activities on the Flex-PLI since September 2005. As result of the Flex-TEG activity Japan has submitted proposals for amendments on UN GTR No. 9 - Phase 2 as well as on the draft UN Regulation on Pedestrian Safety (Phase 2). At the forty-ninth session of GRSP some delegations have expressed outstanding reservations with regard to the introduction of the Flex-PLI and requested to set up an informal working group to discuss related issues and to develop proposals to amend UN GTR No. 9.

3. GRSP agreed to seek the consent of WP.29 and AC.3 to mandate a new informal working group to solve the pending issues for the incorporation of the Flex-PLI in Phase 2 of the UN GTR No. 9 and in the draft UN Regulation on pedestrian safety in the same time. The World Forum agreed to set up this informal working group, subject to the submission to WP.29 of the appropriate terms of references (ECE/TRANS/WP.29/1091, para. 36 and 100).

B. Objective of the informal working group

4. The main objective of the informal working group UN GTR No. 9 – Phase 2 (GTR9-PH2) is to develop a draft proposal to amend the UN global technical regulation No. 9 - Phase 2 on pedestrian safety by introducing the Flex-PLI as a single harmonized test tool in order to enhance the safety level of lower leg pedestrian protection.

5. The work of the informal working group shall not be limited to draft proposals to amend UN GTR No. 9, but shall cover the development of a complementary draft proposal to amend the draft UN Regulation on pedestrian safety.

6. The informal working group may also review further draft proposals to improve and / or clarify aspects of the legform test procedure.

The informal working group GTR9-PH2 shall work on the items listed in Appendix I to this document.

C. Work plan and time schedule

May 2011 Proposal of Draft Terms of Reference to GRSP (informal document)
June 2011 GRSP to seek consent of WP.29 and AC.3 to mandate new informal working group on pedestrian protection

03 November 2011 Constitutional meeting of the informal working group GTR9-PH2 (Bonn, Germany)

November 2011 Report to WP.29 on activities of informal working group

01/02 December 2011 First meeting of the informal working group GTR9-PH2 (Geneva, Switzerland)

December 2011 Progress-Report to GRSP, submission of Draft ToR to WP.29

March 2012 Progress-Report to WP.29 and adoption of ToR by WP.29 / AC.3

March 2012 Second meeting of the informal working group GTR9-PH2

May 2012 Third meeting of the informal working group GTR9-PH2

May 2012 Progress-Report to GRSP

September 2012 Fourth meeting of the informal working group GTR9-PH2

November 2012 Progress-Report to WP.29

December 2012 Fifth meeting of the informal working group GTR9-PH2

December 2012 Progress report and submission of informal draft documents to GRSP

March 2013 Sixth meeting of the informal working group GTR9-PH2

May 2013 Submit formal proposal to GRSP, adoption by GRSP, submit formal proposal to WP.29

November 2013 Adoption by WP.29

※ Additional meetings (including virtual meetings) could be held according to the progress of discussions and the decision of the informal working group.
Appendix 1

Activity List

The major tasks that will be performed by the informal working group on the phase 2 of gtr No. 9 include:

1. Review and consideration of remaining items:
   (a) Review of Flex-TEG activities to reach common understanding;
   (b) Assessment of biofidelity (comparison of FlexPLI and EEVC lower legform impactor);
   (c) Assessment of benefit and costs (injury reduction, additional benefit compared to EEVC lower legform impactor);
   (d) Technical specifications (drawings) and PADI (user manual);
   (e) Evaluation of durability;
   (f) Test procedure (rebound phase, best practice, velocity measurement etc.);
   (g) Certification tests;
   (h) Review and exchange of test results;
   (i) Evaluation of reproducibility and repeatability;
   (j) Evaluate and decide on performance / injury criteria and threshold values;
   (k) Evaluation of vehicle countermeasures (assessment of technical feasibility).

2. Develop a draft proposal to amend UN GTR No. 9 - Phase 2.

3. Develop a complementary draft proposal to amend draft UN Regulation on Pedestrian Safety (including a recommendation for transitional provisions based on item 1).
Annex III

Adopted revised terms of reference of the informal working group on pole side impact global technical regulation

Text based on GRSP-50-20 (see para. 11 of this report)

The major tasks that will be performed by the informal working group include:

1. Review of existing research, including crash tests, and literature.
2. Liaison with, and consideration of the results of, the GRSP WorldSID Informal working group.
3. Assessment of safety need, including analysis of current fatalities and injuries from pole side impact, other side impacts and rollovers, taking account of positive safety developments already occurring or likely such as electronic stability control (ESC); and target vehicle categories to be taken into consideration.
4. Examination of possible test procedures.
5. Consideration of variations to candidate test procedures.
6. Establishment of likely countermeasures driven by shortlisted test procedures.
7. Calculation of likely injury mitigation coverage of the crash and injury population from these countermeasures.
8. Assessment of benefits and costs for shortlisted test procedures (including data from a significant range of countries, as there may be wide variations in benefits).
9. Assessment of likely incremental benefits and costs from, e.g. non-struck side and rear seat occupants.
10. Selection of a preferred test procedure.
11. Production of a draft UN GTR-Phase 1 (WorldSID 50th percentile male) for consideration by GRSP and subsequently WP.29 and
12. Production of a draft UN GTR-Phase 2 (WorldSID 5th percentile female) for consideration by GRSP and subsequently WP.29.
Annex IV

Draft amendments to Regulation No. 44

Amendments adopted to ECE/TRANS/WP.29/GRSP/2011/28 (see para. 27 of the report)

...  

Paragraph 6.2.14. amend to read:

"6.2.14. The child restraints incorporating inflatable ... of this Regulation. All requirements are to be met in inflated, and in deflated mode."

Amendments adopted to ECE/TRANS/WP.29/GRSP/2011/32 (see para. 27 of the report)

Paragraph 15.2.9., amend to read:

"15.2.9. In the case of rearward facing systems the customer shall be advised not to use them in seating positions where there is active frontal airbag installed. This information shall be clearly visible at the point of sale without removing the packaging;"

Adopted on the basis of GRSP-50-14 (see para. 27 of the report)

Paragraph 4.4., shall be deleted

Insert a new paragraph 4.4., to read:

"4.4. On the visible inner surface (including the side wing beside the child’s head) in the approximate area where the child’s head rests within the Child Restraint System, rearward facing restraints shall have the following label permanently attached (the information shown is a minimum).

Label minimum size: 60 x 120 mm.

The label shall be stitched to the cover around its entire perimeter and/or permanently bonded to the cover over its entire back surface. Any other form of attachment that is permanent and not liable to removal from the product or to becoming obscured is acceptable. Flag type labels are specifically prohibited.

If sections of the restraint or any accessories supplied by the Child Restraint System manufacturer are able to obscure the label an additional label is required. One warning label shall be permanently visible in all situations when the restraint is prepared for use in any configuration."
Pictogram according to ISO 2575:2004 - Z.01 shall be exact or larger as well as in the specified colours red, black and white.

Label outline, vertical and horizontal line black

White background

White background

Top symbols black, with yellow or amber background

Pictogram images shall be grouped, exact or larger as well as in the indicated colours red, black and white.
Annex V

New terms of reference for the mandate to the informal working group on frontal collision

Text based on ECE/TRANS/WP.29/GRSP/2011/24 (see para. 31 of this report)

1. The informal working group shall consider the update of Regulation No. 94 on protecting older occupants, female occupants and also focus on optimization of vehicles’ structural interaction to improve self-protection and partner protection.

2. The informal working group will make use of existing tools, consider and develop the results of ongoing research and validation programmes.

3. In particular, the informal working group expects to make use of results from:
   (a) Frontal Impact and Compatibility Assessment Research (FIMCAR) on the set of test procedures (target end of 2012);
   (b) Thoracic injury assessment for improved vehicle safety (THORAX) on thorax injury prediction tools (target mid 2012);
   (c) An expert group who will validate the use of thorax injury prediction tools (deflection equivalent (DEQ), Thorax Multi-Point and high Rate measurement device (THMPR) and RibEye) for the Hybrid III dummy (target end of 2012);
   (d) An expert group who will conduct an impact assessment (until the end of 2013).

4. As a first step following these results, the group will propose a final draft for amendment to Regulation No. 94, for GRSP at its May 2014 session.

5. A second step would be to improve the Regulation, preferably by means of a global technical regulation (gtr), starting at least mid-2014, depending on the availability and the progress of the Test Device for Human Occupant Restraint New Type (THOR NT) with input from the research project THORAX.

6. The informal working group encourages collaboration on the development of a harmonized THOR dummy for this second step.

7. A “grandfathering” clause could be used for the second phase, so that the new requirements may apply only to completely new vehicle designs.

8. The informal working group submits the above proposal for comments and endorsement to GRSP experts to seek consent from the World Forum for Harmonization of Vehicle Regulation (WP.29) for an extension of the mandate of the informal working group until the end of 2014.
Annex VI

Amendments to draft Regulation on uniform provisions concerning the approval of enhanced Child Restraint Systems used onboard of motor vehicles

Amendments adopted to ECE/TRANS/WP.29/GRSP/2011/21 (see para. 40 of the report)

All square brackets from the text shall be removed

... 

Paragraph 2.2., amend to read:

"2.2. "Child restraint type" means …
the category in which the restraint is type approved;
the design, material and construction of the Child Restraint System.

Convertible or modular Child Restraint Systems shall be considered to not differ in their design, material and construction."

Paragraph 5.4.2.3., amend to read:

"5.4.2.3. the symbol "S" in the case of a "Special Needs Restraint"

Paragraph 6.1.2.2., the table, amend to read:

"6.1.2.2. …

Table 1

Possible configurations for type approval

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<thead>
<tr>
<th>Orientation</th>
<th>i-Size CRS</th>
<th>Integral Specific Vehicle</th>
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<tr>
<td></td>
<td></td>
<td>ISOFIX CRS</td>
</tr>
<tr>
<td>INTEGRAL Lateral facing (Carry-cot)</td>
<td>NA</td>
<td>A</td>
</tr>
<tr>
<td>Rearward facing</td>
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<td>A</td>
</tr>
<tr>
<td>Forward facing (integral)</td>
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<td>A</td>
</tr>
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</table>

..."

Paragraph 6.3.1.1., amend to read:

"6.3.1.1. The … parts of EN 71.2009 Part 3. Tests confirming … “.

Paragraph 6.3.5., the reference to footnote 3 and footnote 3, renumber as footnote 2
Paragraph 6.3.5.1., amend to read:

"6.3.5.1. …

(c) in height by a … a distance of 70 mm above …positioned at a distance and of 285 mm below the origin …“

Paragraph 6.6.4.1., the note below the table, amend to read:

"6.6.4.1. …

Table 2

…

Note 1: Standard seat means test seat or test bench

Note 2: for lateral facing child restraint systems in lateral impact, if two positions are possible, then the dummy’s head shall be situated near the side door.”

Paragraph 6.6.4.3.1., the table, the references to footnotes 4 and footnote 4 renumber as footnote 3 and amend to read

"3 HPC : see annex 17“

Paragraph 6.6.4.3.1., the table, the references to footnotes 5 and 6 and footnotes 5 and 6, renumber as footnotes 3 and 5

Paragraph 6.6.4.5.2., the table, the references to footnotes 7 and 8 and footnotes 7 and 8, renumber as footnotes 5 and 6

Paragraph 7.1.3.1.2.3., amend to read:

“7.1.3.1.2.3. The deceleration conditions shall satisfy the requirements of Annex 7, Appendix 2.

The acceleration conditions shall satisfy the requirements of Annex 7, Appendix 2.”

Paragraph 7.1.3.1.3.2., amend to read:

“7.1.3.1.3.2. The lower ISOFIX … The ISOFIX anchorages shall be fixed to a sliding…”

Paragraph 7.1.3.6., amend to read:

“7.1.3.6. …

Where … or if the size range cover more than 3 size ranges a relevant intermediate dummy(ies) shall be tested in addition to the dummy(ies) defined above.”

Paragraph 7.5., the table, amend to read:

“7.5.

Table 9

<table>
<thead>
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<th>Type of measurement</th>
<th>$CFC(F_0)$</th>
<th>Cut-off frequency ($F_0$)</th>
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<tr>
<td>Head acceleration</td>
<td>1,000</td>
<td>1650 Hz</td>
</tr>
<tr>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
</tbody>
</table>
Paragraph 8.1., amend to read:

"8.1. …

(h) the following dummy criteria: HIC, Head Acceleration 3ms, Upper Neck Tension Force, Upper Neck Moment, Thorax Chest Deflection; and

(i) the lap belt force."

Paragraph 14.3.3., amend to read:

"14.3.3. for forward facing Child Restraint System, the following information shall be clearly visible on the exterior of the packing:

"IMPORTANT - DO NOT USE FORWARD FACING BEFORE THE CHILD'S AGE EXCEEDS 15 months (Refer to instructions)".

Annex 2, amend to read:

"Arrangements of the Approval Mark

The Child Restraint System bearing ...

The Child Restraint System ... concerning the approval of specific vehicle ISOFIX Child Restraint ...

Annex 6.

Paragraphs 3.1.1. and 3.1.2., amend to read:

"3.1.1. a rigid back, fixed, dimensions of which are given in Appendix 1 to this annex.

3.1.2. rigid seating, dimensions of which are given in Appendix 1 to this annex. The rear part of the seating is made from a rigid sheet metal. The front part of the seating is also made of a 20 mm diameter tube;"
Paragraph 3.1.5., the table, amend to read:

"3.1.5. the back and …;

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Standard</th>
<th>Value</th>
<th>Unit</th>
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<tbody>
<tr>
<td>density</td>
<td>EN ISO 845</td>
<td>68-74</td>
<td>Kg/m3</td>
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<tr>
<td>Compression Resistance</td>
<td>EN ISO 3386/1 (40% compression)</td>
<td>13</td>
<td>kPa</td>
</tr>
<tr>
<td>Indentation Load Deflection (ILD)</td>
<td>EN ISO 2439B (40% compression)</td>
<td>500 (+/-15%)</td>
<td>N</td>
</tr>
<tr>
<td>Tensile strenght</td>
<td>EN ISO 1798</td>
<td>≥ 150</td>
<td>kPa</td>
</tr>
<tr>
<td>Ultimate Elongation</td>
<td>EN ISO 1798</td>
<td>≥ 120</td>
<td>%</td>
</tr>
<tr>
<td>Compression set</td>
<td>EN ISO 1856 (22hr/50%/70\degreeC)</td>
<td>≤ 3</td>
<td>%</td>
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</tbody>
</table>

Paragraph 3.1.7., footnote 1, shall be deleted

Paragraph 3.3.1.1., amend to read (including the reference to footnote 2 and footnote 2 renumber as footnote 1):

"3.3.1.1. The floor pan shall be rigidly mounted on the trolley. The height of the floor pan relative to the Cr axis projection point, dimension 1 in Annex 6 Appendix 2 figure 2, shall be adjusted to meet the requirements of paragraph 7.1.4.1.9."

Paragraph 4.5., Table 3, the reference to footnote 3 and footnote 3, renumber as footnote 2

Annex 7,

Appendix 1, amend to read:

"...

The additional segment applies only for the acceleration sled."

Appendix 2, amend to read:

"...

The additional segment applies only for the acceleration sled."

Appendix 3, the figure, amend to read:

"...

---

1 The dimension shall be of 210 mm with an adjustment range of ±70 mm.
Appendix 4,

Paragraph 2.4., the remark, shall be deleted.

Annex 8,

Paragraph 2.3., shall be deleted.

Paragraph 4.2, Table 2, footnotes ¹ and ², amend to read:

¹ See section 7.1.3.5.2.2: Height of spacer device (hinged board or similar flexible device) equals shoulder height sitting minus thigh height sitting.

² [The technical specifications and detailed drawings of Q-dummy, and the technical specifications for its adjustment for the tests of this Regulation are deposited on the website of the UNECE, Palais de Nations, Geneva, Switzerland.]

…
## Annex VII

### List of GRSP informal working groups

<table>
<thead>
<tr>
<th>Informal working group</th>
<th>Chair</th>
<th>Expiry date of the mandate</th>
<th>Secretary</th>
</tr>
</thead>
<tbody>
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<td>Email: <a href="mailto:robert.hogan@infrastructure.gov.au">robert.hogan@infrastructure.gov.au</a></td>
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