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World Forum for Harmonization of Vehicle Regulations

Working Party on Passive Safety

**REPORT OF THE WORKING PARTY ON PASSIVE SAFETY
ON ITS FORTY-SIXTH SESSION
(Geneva, 8 - 11 December 2009)**

CONTENTS

	<u>Paragraphs</u>	<u>Page</u>
I. ATTENDANCE.....	1-2	4
II. ADOPTION OF THE AGENDA (Agenda item 1)	3	4
III. GLOBAL TECHNICAL REGULATION No. 1 (Door locks and door retention components) (Agenda item 2)	4	4
IV. GLOBAL TECHNICAL REGULATION No. 7 (Head restraints) (Agenda item 3)	5	4

CONTENTS (continued)

	<u>Paragraphs</u>	<u>Page</u>
V. GLOBAL TECHNICAL REGULATION No. 9 (Pedestrian safety) (Agenda item 4)	6-11	5
A. Phase 2 of the global technical regulation - flexible legform impactor provisions (Agenda item 4(a)).....	6-9	5
B. Proposal for draft Amendment 1 to global technical regulation No. 9 (Agenda item 4(b))	10	6
C. Proposal for draft Corrigendum 2 to global technical regulation No. 9 (Agenda item 4(c)).....	11	6
VI. SIDE IMPACT (Agenda item 5).....	12	6
VII. CRASH COMPATIBILITY (Agenda item 6)	13	6
VIII. HYDROGEN AND FUEL CELL VEHICLES (Agenda item 7)	14	7
IX. REGULATION No. 11 (Door latches and hinges) (Agenda item 8)....	15-18	7
X. REGULATION No. 14 (Safety-belt anchorages) (Agenda item 9)	19-20	7
XI. REGULATION No. 16 (Safety-belts) (Agenda item 10)	21-22	8
XII. REGULATION No. 17 (Strength of seats) (Agenda item 11).....	23	8
XIII. REGULATION No. 22 (Protective helmets) (Agenda item 12)	24	8
XIV. REGULATION No. 29 (Cabs of commercial vehicles) (Agenda item 13)	25	9
XV. REGULATION No. 94 (Frontal collision) (Agenda item 14).....	26-28	9
XVI. BUSES AND COACHES (Agenda item 15).....	29-31	10
A. Frontal collision of buses and coaches (Agenda item 15(a)).....	29-30	10
B. Restraining of children traveling in buses and coaches (Agenda item 15(b))	31	10
XVII. PROPOSAL FOR THE 01 SERIES OF AMENDMENTS TO REGULATION No. 100 (Construction and functional safety of battery electric vehicles) (Agenda item 16)	32-33	10

CONTENTS (continued)

	<u>Paragraphs</u>	<u>Page</u>
XVIII. DRAFT REGULATION ON PEDESTRIAN SAFETY (Agenda item 17)	34	11
XIX. DRAFT NEW REGULATION ON CHILD RESTRAINT SYSTEMS (Agenda item 18)	35-36	11
XX. ELECTION OF OFFICERS (Agenda item 19)	37	11
XXI. OTHER BUSINESS (Agenda item 20)	38-42	12
A. Exchange of information on national and international requirements on passive safety (Agenda item 20(a))	38	12
B. Regulation No. 80 (Strength of seats and their anchorages (buses)) (Agenda item 20(b))	39-40	12
C. Regulation No. 12 (Steering mechanism) (Agenda item 20(c))	41	12
D. Collective amendments to Regulations No. 12, 14, 16, 17, 21, 25, 94 and 95 (Agenda item 20(d))	42	12
XXII. PROVISIONAL AGENDA FOR THE NEXT SESSION	43	12

Annexes

I. LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION (GRSP-46-..)	14
II. AMENDMENTS TO REGULATION No. 11	17
III. AMENDMENTS TO REGULATION No. 29	18
IV. AMENDMENTS TO REGULATION No. 100	22
V. AMENDMENTS TO REGULATION No. 80	26
VI. INFORMAL GROUPS OF GRSP	27

I. ATTENDANCE

1. The Working Party on Passive Safety (GRSP) held its forty-sixth session from 8 (afternoon only) to 11 (morning only) December 2009 under the chairmanship of Mrs. S. Meyerson (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): Belgium, Canada; China; Czech Republic; Finland; France; Germany; Hungary; India; Italy; Japan; Netherlands; Norway; Poland; Republic of Korea; Russian Federation; 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: International Motorcycle Manufacturers Association (IMMA); International Organization of Motor Vehicle Manufacturers (OICA); European Association of Automotive Suppliers (CLEPA); Consumers International (CI) and Foundation for the Automobile and Society (FIA Foundation).

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/2009/14, Informal document No. GRSP-46-05

3. GRSP agreed to insert new agenda items 4(c), 20(c) and 20(d) (see paras.11, 41 and 42) and adopted the agenda proposed for the forty-sixth session (ECE/TRANS/WP.29/GRSP/2009/14) as well as the running order (GRSP-46-05).

III. GLOBAL TECHNICAL REGULATION No. 1 (Door locks and door retention components) (Agenda item 2)

Documentation: ECE/TRANS/WP.29/GRSP/2009/2, ECE/TRANS/WP.29/GRSP/2008/3, ECE/TRANS/WP.29/GRSP/2008/4 and ECE/TRANS/WP.29/GRSP/2008/20

4. The expert from United States of America informed GRSP that the rulemaking procedure to transpose gtr No. 1 had not yet been finalized and that a final consolidated proposal for amendments to gtr No. 1 would be submitted at a further session of GRSP. It was agreed to defer the discussion of this agenda item to the May 2010 session of GRSP.

IV. GLOBAL TECHNICAL REGULATION No. 7 (Head restraints) (Agenda item 3)

Documentation: ECE/TRANS/WP.29/2009/130

5. GRSP noted that the Executive Committee of the 1998 Agreement (AC.3) at its June 2009 session, adopted a proposal (ECE/TRANS/WP.29/2009/130 amended by WP.29-149-30) for the development of Phase 2 of the gtr (ECE/TRANS/WP.29/1079, para. 102). According to this decision, the Chairman of the informal group on gtr No. 7 Phase 2, informed GRSP of the outcome of the first meeting of his group held on 8 December 2009. He stated that the group was reviewing the current activities in Europe, republic of Korea, United States of America and Japan and that the

next meeting planned for 2-3 February 2010 in Tokyo, would aim at reviewing further research outcomes including the development and use of the biofidelic rear impact test dummy (BioRID II).

V. GLOBAL TECHNICAL REGULATION No. 9 (Pedestrian safety) (Agenda item 4)

A. Phase 2 of the global technical regulation - flexible legform impactor provisions (Agenda item 4(a))

Documentation: ECE/TRANS/WP.29/2009/124 and ECE/TRANS/WP.29/GRSP/2009/21, Informal documents GRSP-46-10, GRSP-46-11, GRSP-46-17 and GRSP-46-17/Rev.1, GRSP-46-21 and GRSP-46-32

6. GRSP noted that AC.3 had adopted at its last November 2009 session a proposal (ECE/TRANS/WP.29/2009/124) for developing amendments to gtr No. 9 concerning the incorporation of the flexible legform impactor (Flex-PLI) provisions to the gtr. GRSP agreed that a mandate for an informal group to develop the amendment was not needed (ECE/TRANS/WP.29/1079 para. 101). The expert from Japan introduced the latest status report on the flexible pedestrian legform (Flex-PLI) prepared by the Flex-PLI technical evaluation group (GRSP-46-21). The expert from Japan introduced ECE/TRANS/WP.29/GRSP/2009/21, GRSP-46-10, GRSP-46-17 and GRSP-46-17/Rev.1 for the incorporation of provisions of this test tool. He also introduced GRSP-46-11, to further explain the possible introduction of requirements regarding a limit of anterior cruciate ligament (ACL) elongation and a limit of posterior cruciate ligament (PCL) elongation. The expert from OICA was of the opinion that more justification was needed for these provisions and indicated that there was no consensus in the Flex-PLI technical evaluation group as to whether these provisions should be mandated, deleted, or kept for monitoring purposes only. The expert from Germany introduced GRSP-46-32 requesting the mandatory inclusion of these injury criteria. The expert from the Netherlands endorsed this request in order to keep the same level of protection as the current version of the gtr provides for this body section.

7. The expert from the United States of America expressed concerns on the durability of the legform test tool that could affect the justification of its inclusion in a Federal Motor Vehicle Safety Standard (FMVSS).

8. GRSP noted the suggestion by the representative of OICA to AC.3, at its November 2009 session (ECE/TRANS/WP.29/1079, para. 101), to find a solution to ensure that the transition between the present legform and the Flex-PLI occurs in a smooth and harmonized way, as proposed in ECE/TRANS/WP.29/GRSP/2009/21. The expert from the United States of America reminded that the Agreement did not provide transitional provisions, even in the preamble.

9. Finally, GRSP agreed to discuss again this point at its May 2010 session, awaiting further research outcomes and data regarding the technical matters. Moreover, since the issue of transitional provisions raised legal implications, GRSP agreed to seek guidance to the Administrative Committee for the Coordination of Work (WP.29/AC.2) at its March 2010 session. The secretariat was requested to distribute a consolidated proposal (ECE/TRANS/WP.29/GRSP/2009/21 and GRSP-46-17/Rev.1), GRSP-46-10 and GRSP-46-32 with an official symbol at the next session of GRSP.

**B. Proposal for draft Amendment 1 to global technical regulation No. 9
(Agenda item 4(b))**

Documentation: ECE/TRANS/WP.29/GRSP/2009/20, ECE/TRANS/WP.29/AC.3/23, Informal documents Nos. GRSP-46-22, GRSP-46-22/Rev.1 and GRSP-46-35

10. GRSP noted that AC.3 at its June 2009 session had agreed to develop amendments to the gtr (ECE/TRANS/WP.29/AC.3/23) regarding the introduction in the gtr of a tolerance of the geometric criteria that determines the exemption of flat front vehicles (approved as categories 1-2 and 2 or as category 1-1 with a gross vehicle mass exceeding 2.5 t which are derived from category 2) (ECE/TRANS/WP.29/1077 para. 92). Accordingly, the expert from Germany introduced GRSP-46-35, superseding ECE/TRANS/WP.29/GRSP/2009/20, as well as a draft final report (GRSP-46-22 and GRSP-46-22/Rev.1). GRSP agreed to resume the discussion of this agenda item at its May 2010 session and requested the secretariat to distribute GRSP-46-22/Rev.1 and GRSP-46-35 with official symbols.

**C. Proposal for draft Corrigendum 2 to global technical regulation No. 9
(Agenda item 4(c))**

Documentation: Informal document GRSP-46-09

11. GRSP noted a proposal for amendments to gtr No. 9 (GRSP-46-09). GRSP agreed to consider it as draft Corrigendum 2 to gtr No. 9 and discuss again this agenda item at its May 2010 session. The secretariat was requested to distribute GRSP-46-09 with an official symbol at the next session of GRSP.

VI. SIDE IMPACT (Agenda item 5)

Documentation: Informal document No. GRSP-46-34

12. The expert from the United States of America introduced GRSP-46-34, aimed at proposing the inclusion of the harmonization activities of side impact dummies into the program of work of AC.3, as well as the request for the establishment of an informal group on this subject. GRSP endorsed the initiative of the United States of America and agreed to resume consideration on this agenda item at its May 2010 session, awaiting the decision of AC.3 at its March 2010 session.

VII. CRASH COMPATIBILITY (Agenda item 6)

Documentation: Informal document No. GRSP-46-26

13. GRSP noted that no new information was available on this agenda item also with regard to the activities of the informal group on frontal impact (GRSP-46-26).

VIII. HYDROGEN AND FUEL CELL VEHICLES (Agenda item 7)

14. GRSP noted that, despite the good progress made by the sub-group on safety of hydrogen and fuel cells vehicles (HFCV-SGS), the extension of the deadline to the end of 2011 was needed to finalize the draft gtr. It was noted that the next meeting of the sub-group was planned for 20-22 January 2010 in Geneva.

IX. REGULATION No. 11 (Door latches and hinges) (Agenda item 8)

Documentation: ECE/TRANS/WP.29/GRSP/2009/22, Informal documents Nos. GRSP-46-03, GRSP-46-07, GRSP-46-33 and GRSP-46-40

15. The expert from EC introduced GRSP-46-40, superseding ECE/TRANS/WP.29/GRSP/2009/22. The expert from OICA withdrew GRSP-46-33 and stated that a further revision of transitional provisions was needed. Some experts requested a time reservation in order to verify the legal implication of a proposed footnote, introducing exemption to running boards and steps provisions on the basis of national legislations.

16. Moreover, the expert from the Netherlands introduced GRSP-46-03, to solve interpretations on the protection of occupants regarding the risk of ejection from back doors. The expert from Japan stated the need to insert proper transitional provisions in order to adapt its national legislation to this requirement.

17. GRSP agreed to resume discussion of this agenda item at its May 2009 session awaiting a revised consolidated proposal voluntarily prepared by the expert from EC in collaboration with the experts from the Netherlands, Japan and OICA in order to include into the draft 04 series all the proposed amendments (GRSP-46-40 and GRSP-46-03) with proper transitional provisions.

18. GRSP considered GRSP-46-07 in order to correct the French text of the Regulation. GRSP adopted GRSP-46-07 as reproduced in Annex II to this report. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration at their June 2010 sessions, as draft Corrigendum 1 to the 03 series of amendments to Regulation No. 11.

X. REGULATION No. 14 (Safety-belt anchorages) (Agenda item 9)

Documentation: Informal documents Nos. GRSP-46-13, GRSP-46-14 and GRSP-46-16

19. The expert from Germany introduced GRSP-46-13 and GRSP-46-16 aimed respectively at preventing misuse of the ISOFIX top tether anchorage and by setting up requirements to exempt vehicles from the ISOFIX installation when these reveal a limited construction space. GRSP agreed to resume consideration on these subjects at its May 2010 session and requested the secretariat to distribute GRSP-46-13 and GRSP-46-16 with official symbols.

20. Finally, the expert from Germany introduced GRSP-46-14 to allow the installation of side-facing seats under certain conditions. GRSP agreed to resume consideration of this subject at its May 2010 session on the basis of a revised proposal.

XI. REGULATION No. 16 (Safety-belts) (Agenda item 10)

Documentation: Informal documents Nos. GRSP-46-02, GRSP-46-06, GRSP-46-12, GRSP-46-15 and GRSP-46-29

21. With regard to the decision of WP.29 at its November 2009 session (ECE/TRANS/WP.29/1079, para 48), GRSP noted GRSP-46-06 aimed at having a further review of the technical contents of the 06 series of amendment to the Regulation, with regard to the installation of safety belts on M₂ and M₃ Class II vehicles. Moreover, the expert from CLEPA made a presentation (GRSP-46-29) to introduce a draft proposal (GRSP-46-12) aimed at facilitating the buckling up of safety belts. GRSP agreed to resume consideration of these subjects at its May 2010 session and requested the secretariat to distribute GRSP-46-06, GRSP-46-12 with official symbols.

22. As for Regulation No. 14 (paragraph 20 above), GRSP noted GRSP-46-15. Finally, the expert from Germany withdrew GRSP-46-02, regarding proper type approval numbers of safety-belts. For both subjects, GRSP agreed to resume discussion at its May 2010 session on the basis of revised proposals.

XII. REGULATION No. 17 (Strength of seats) (Agenda item 11)

Documentation: ECE/TRANS/WP.29/GRSP/2009/7, ECE/TRANS/WP.29/GRSP/2009/15, ECE/TRANS/WP.29/GRSP/2009/23 and ECE/TRANS/WP.29/GRSP/2009/24

23. GRSP discussed again ECE/TRANS/WP.29/GRSP/2009/15 (superseding ECE/TRANS/WP.29/GRSP/2009/7), ECE/TRANS/WP.29/GRSP/2009/23 and ECE/TRANS/WP.29/GRSP/2009/24. The experts from Japan and EC urged a revision of Regulation No. 17 on the basis of the proposals received so far. Some GRSP experts deemed this decision premature and preferred to wait for the Phase 2 of the gtr. The expert from the Netherlands underlined the need for a quick revision of the height of head restraints. He mentioned that he had reiterated this request for many years and that it was not related to the Phase 2 of the gtr. Finally, GRSP agreed to resume discussion on this agenda item, at its May 2010 session awaiting the outcome of the next meetings of the informal group on gtr No. 7 Phase 2.

XIII. REGULATION No. 22 (Protective helmets) (Agenda item 12)

24. Due to the lack of new information, GRSP agreed to defer discussion of this agenda item to the next session.

XIV. REGULATION No. 29 (Cabs of commercial vehicles) (Agenda item 13)

Documentation: ECE/TRANS/WP.29/GRSP/2007/2, ECE/TRANS/WP.29/GRSP/2007/14, ECE/TRANS/WP.29/GRSP/2007/15, ECE/TRANS/WP.29/GRSP/2009/8 and ECE/TRANS/WP.29/GRSP/2009/19, Informal documents Nos. GRSP-46-01, GRSP-46-24 and GRSP-46-24/Rev.1

25. GRSP considered and adopted ECE/TRANS/WP.29/GRSP/2009/19, amended by GRSP-46-24/Rev.1 (superseding ECE/TRANS/WP.29/GRSP/2007/2, ECE/TRANS/WP.29/GRSP/2007/14, ECE/TRANS/WP.29/GRSP/2007/15, ECE/TRANS/WP.29/GRSP/2009/8, GRSP-46-01 and GRSP-46-24), as reproduced in Annex III to this report. GRSP thanked the expert from the Russian Federation for his efforts in developing this proposal. Moreover, GRSP agreed to consider, in future sessions, the need to include in another draft series of amendments a rear wall strength test (test D), to evaluate the effects of load shifting forward, pending a new proposal from the expert of the Russian Federation. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration at their June 2010 sessions, as draft 03 series of amendments to Regulation No. 29.

XV. REGULATION No. 94 (Frontal collision) (Agenda item 14)

Documentation: Informal documents Nos. GRSP-46-04, GRSP-46-08, GRSP-46-20, GRSP-46-26, GRSP-46-27 and GRSP-46-27/Rev.1 and GRSP-46-37

26. The Chairman of the informal group on frontal collision introduced the status report of this group (GRSP-46-26). He concluded that more time and discussion were needed to reach an agreement on the main issues indicated in the terms of reference of the group (GRSP-43-12). GRSP agreed to inform WP.29 at its March 2010 session in order to rearrange the plans of the group.

27. The expert from OICA introduced GRSP-46-08 regarding the elimination of the text from the warning label on the presence of air-bags. The experts from Consumers International and FIA Foundation argued that a minimum text was needed and that only a pictogram was not clear enough to alert vehicle occupants. GRSP agreed to resume discussion of this item at its May 2010 session and requested the secretariat to distribute GRSP-46-08 with an official symbol.

28. According to the last status report (GRSP-46-20) of the electric safety informal group (ELSA), the expert from France underlined the need for a revision of both Regulations No. 94 (frontal collision) and 95 (lateral collision) to be adopted by GRSP at its May 2010 session in order to allow the type approval of electric vehicles (see para. 32). Accordingly, he introduced a status report (GRSP-46-27) of a meeting of interested experts (convened in Paris on 22-23 October 2009) and its outcome as a first draft amendment to Regulation No. 94 (GRSP-46-04). He concluded that another meeting was scheduled on 13-14 January 2010. The expert from Japan stated with GRSP-46-37 and GRSP-46-27/Rev.1, that according to the ELSA terms of references (GRSP-43-21), the Japanese technical standard (Attachment 111 - protection of passengers from high voltage after collision of electrical vehicles and electrical hybrid vehicles) was one of the basis for the activity of these informal meetings. GRSP agreed to resume discussion on this agenda item at its May 2010 session, on the basis of a new revised proposal.

XVI. BUSES AND COACHES (Agenda item 15)

A. Frontal collision of buses and coaches (Agenda item 15(a))

29. The expert from Germany informed GRSP of the ongoing activity of the Working Party on General Safety Provisions (GRSG) on this subject. He said that due to the lack of cost benefit analysis the expert from Germany had withdrawn the draft Regulation at the October 2009 session of GRSG.

30. The expert from Spain informed GRSP that he would provide new information on the work activity of the European Enhanced Vehicle Committee (EEVC) on this subject at further GRSP sessions.

B. Restraining of children travelling in buses and coaches (Agenda item 15(b))

Documentation: Informal document No. GRSP-46-41

31. The expert from Japan introduced GRSP-46-41 informing GRSP of the results of a comparative survey conducted in his country, Europe and North America, regarding the current situation on this issue. He added that legislative initiatives to enhance safety of vehicles carrying children, was in progress in his country. GRSP agreed to resume discussion of this agenda item at its May 2010 session.

**XVII. PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 100
(Construction and functional safety of battery electric vehicles) (Agenda item 16)**

Documentation: ECE/TRANS/WP.29/GRSP/2009/16, Informal documents GRSP-46-20 and GRSP-46-31

32. The secretary of the ELSA informal group on behalf of its Chairman introduced the latest status report of the informal group (GRSP-46-20) and ECE/TRANS/WP.29/GRSP/2009/16 introducing in-use provisions for all kinds of electric vehicles. He added that the group was not yet in a position to complete post-crash provisions regarding the 1958 Agreement (see para. 27). Finally, he said that in order to finalize provisions to be applicable to the draft gtr on Hydrogen and Fuel Cells Vehicles, the group would convene on 23-25 February 2010 in Washington D.C., provided that the rulemaking process of the United States of America on Federal Motor Vehicle Safety Standard (FMVSS) No. 305 was advanced.

33. GRSP adopted ECE/TRANS/WP.29/GRSP/2009/16, amended by GRSP-46-31, as reproduced in Annex IV to this report, and agreed to leave the transitional provisions in square brackets pending decision of WP.29. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration at their March 2010 sessions, as draft 01 series of amendments to Regulation No. 100.

XVIII. DRAFT REGULATION ON PEDESTRIAN SAFETY (Agenda item 17)

Documentation: ECE/TRANS/WP.29/GRSP/2009/17, Informal document GRSP-46-36

34. GRSP considered GRSP-46-36 amending the scope of ECE/TRANS/WP.29/GRSP/2009/17. GRSP agreed to defer discussion of this agenda item at its May 2010 session, pending the conclusion of the discussion regarding the proposed Amendment 1 to gtr No. 9. GRSP requested the secretariat to distribute GRSP-46-36 at its next session with an official symbol.

XIX. DRAFT REGULATION ON CHILD RESTRAINT SYSTEMS (Agenda item 18)

Documentation: Informal documents Nos. GRSP-46-25, GRSP-46-28 and GRSP-46-38

35. The Chairman of the informal group on child restraints systems (CRS) introduced the latest status report of the informal group (GRSP-46-38). He informed that the new draft Regulation and Regulation No. 44 would coexist in parallel. He added that proper transitional provision should be devised in order to have a smooth introduction of the different phases set in this new Regulation. He explained that the first phase would provide definitions, performance criteria and test methods for integral ISOFIX CRS (incorporating harness), the second one would cover non integral ISOFIX CRS (using adult safety-belts to restrain children) and the third one CRS secured with adult safety-belts. He suggested that the deadline of the informal group should be extended and informed that a further meeting was scheduled on 19 January 2010 in Paris. It was noted that GRSP-46-28 was a draft of the Regulation submitted by the informal group for a first exchange of views. Due to the urgent need to finalize this new Regulation (ECE/TRANS/WP.29/1079, para. 14), GRSP endorsed the suggestion of the Chairman of the informal group and agreed to inform WP.29 at its March 2010 session. GRSP invited all the interested experts to participate in the activities of the informal group in order to adopt a final proposal at the May 2010 session of GRSP.

36. The expert from the FIA Foundation introduced GRSP-46-25, informing GRSP of a case of child restraint system with false ECE approval marks commercialized in South America. GRSP noted that WP.29 had been informed about this case at its November 2009 session and endorsed its recommendation that a special information campaign for consumers should be undertaken.

XX. ELECTION OF OFFICERS (Agenda item 19)

37. 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, re-elected unanimously Mrs. S. Meyerson (United States of America) as Chairperson for the sessions of GRSP scheduled in the year 2010.

XXI. OTHER BUSINESS (Agenda item 20)

A. Exchange of information on national and international requirements on passive safety (Agenda item 20(a))

Documentation: Informal document No. GRSP-46-30

38. The expert from Japan introduced GRSP-46-30 to inform GRSP regarding the new car assessment programme introduced in his country.

B. Regulation No. 80 (Strength of seats and their anchorages (buses)) (Agenda item 20(b))

Documentation: ECE/TRANS/WP.29/GRSP/2009/18, Informal documents GRSP-46-19 and GRSP-46-39

39. GRSP considered and adopted ECE/TRANS/WP.29/GRSP/2009/18, amended by GRSP-46-39, as reproduced in Annex V of this report. The secretariat was requested to submit the proposal to WP.29 and AC.1 at their June 2010 sessions, as draft 02 series of amendments to Regulation No. 80.

40. The experts from Germany and Belgium withdrew GRSP-46-19. GRSP agreed to resume discussion of this agenda item at its May 2010 session on the basis of a revised proposal.

C. Regulation No. 12 (Steering mechanism) (Agenda item 20(c))

Documentation: Informal document GRSP-46-18

41. GRSP welcomed a proposal (GRSP-46-18) tabled by the expert from India. The secretariat was requested to distribute it with an official symbol at the May 2010 session of GRSP.

D. Collective amendments to Regulations No. 12, 14, 16, 17, 21, 25, 94 and 95 (Agenda item 20(d))

Documentation: Informal document GRSP-46-23

42. The expert from CLEPA introduced GRSP-46-23, to make a correction regarding the three dimensional H point machine. The expert from Japan expressed concerns regarding the lack of harmonization of dimensions of the machine among different producers. GRSP agreed to resume discussion of this agenda item at its May 2010 session and requested the secretariat to distribute GRSP-46-23 with an official symbol.

XXII. PROVISIONAL AGENDA FOR THE NEXT SESSION

43. For its forty-seventh session, scheduled to be held in Geneva from 17 (14.30h) to 21

(12.30h) May 2010, GRSP agreed that the Chairperson, in collaboration with the secretariat, would prepare the provisional agenda. GRSP noted that the deadline for submission of official documents to the secretariat was set on 19 February 2010, twelve weeks prior to the session.

Annex I

LIST OF INFORMAL DOCUMENTS DISTRIBUTED DURING THE SESSION (GRSP-46-...)

No.	Transmitted by	Agenda item	Language	Title	Follow-up
01.	Russian Federation	13	E	Proposal of amendments to Regulation No. 29 (Cab of a commercial vehicle)	(a)
02.	Germany	10	E	Proposal of amendments to Regulation No. 16 (Safety-belts)	(a)
03.	The Netherlands	8	E	Proposal of amendments to Regulation No. 11 (Door latches and hinges)	(b)
04.	France	14	E	Proposal of amendments to Regulation No. 94 (Frontal collision)	(a)
05.	GRSP Chairperson	1	E	Running order of the provisional agenda of GRSP	(a)
06.	Secretariat	10	E	Proposal for Corrigendum 3 to the 06 series of amendments to Regulation No. 16 (Safety-belts)	(b)
07.	France	8	E	Proposal for Corrigendum 1 to the 03 series of amendments to Regulation No. 11 (Door latches and hinges)	(d)
08.	OICA	14	E	Proposal for draft Supplement 4 to the 01 series of amendments to Regulation No. 94	(b)
09.	Republic of Korea and EC	4(c)	E	Proposal for amendments to gtr No. 9	(b)
10.	Japan	4(a)	E	Proposal for amendments to ECE/TRANS/WP.29/GRSP/2009/21 (gtr No. 9 - Pedestrian safety)	(b)
11.	Japan	4(a)	E	Proposal for amendments to gtr No. 9	(a)
12.	CLEPA	10	E	Proposal for amendments to Regulation No. 16 (Safety-belts)	(b)
13.	Germany	9	E	Proposal for Supplement 2 to the 07 series of amendments to Regulation No. 14 (Safety-belt anchorages)	(b)
14.	Germany and Belgium	9	E	Proposal for Supplement 2 to the 07 series of amendments to Regulation No. 14 (Safety-belt anchorages)	(a)

No.	Transmitted by	Agenda item	Language	Title	Follow-up
15.	Germany and Belgium	10	E	Proposal for Supplement 1 to the 06 series of amendments to Regulation No. 16 (Safety-belts)	(a)
16.	Germany	9	E	Proposal for Supplement 2 to the 07 series of amendments to Regulation No. 14 (Safety-belt anchorages)	(b)
17/Rev.1	Japan	4(a)	E	Proposal for amendments to ECE/TRANS/WP.29/GRSP/2009/21 (gtr No. 9 - Pedestrian safety)	(b)
18.	India	20(c)	E	Proposal for Supplement 4 to the 03 series of amendments to Regulation No. 12 (Steering mechanism)	(b)
19.	Germany and Belgium	20(b)	E	Proposal for amendments to Regulation No. 80 (Strength of seats(buses))	(a)
20.	ELSA Chairman	14 and 16	E	Status report of the Informal Group on electric Safety (ELSA)	(a)
21.	Japan	4(a)	E	Status report on Flex-TEG activities	(a)
22/Rev.1	Germany	4(b)	E	Final report on the establishment of an amendment to gtr No. 9 (Pedestrian safety)	(b)
23.	CLEPA	20(d)	E	Collective amendments to Regulations Nos. 12, 14, 16, 17, 21, 25, 94 and 95	(b)
24/Rev.1	Chairperson of cab truck strength informal group	13	E	Draft amendments to ECE/TRANS/WP.29/GRSP/2009/19	(d)
25.	FIA Foundation	18	E	Child restraint systems with false ECE approval marks	(a)
26.	(Chairman of the frontal impact informal group)	6 and 14	E	GRSP 46th session - Status report of the informal group	(a)
27/Rev.1	France	14	E	Informal ELSA subgroup status report	(a)

No.	Transmitted by	Agenda item	Language	Title	Follow-up
28.	Chairman of the CRS informal group	18	E	Proposal of new Regulation on child restraint systems	(a)
29.	CLEPA	10	E	Proposal for illuminated safety-belt buckle	(a)
30.	Japan	20	E	New Japan NCAP item	(a)
31.	GRSP Chairperson	4(a)	E	Amendments to ECE/TRANS/WP.29/GRSP/2009/16 - Regulation No. 100 (Electric safety)	(d)
32.	Germany	4(a)	E	Proposal for amendments to ECE/TRANS/WP.29/GRSP/2009/21 (gtr No. 9 - Pedestrian safety)	(b)
33.	OICA	8	E	Proposal for amendments to Regulation No. 11 (Door latches and hinges)	(a)
34.	United States of America	5	E	WorldSID proposal	(d)
35.	Germany and Japan	4(b)	E	Proposal for amendments to ECE/TRANS/WP.29/GRSP/2009/20 (gtr No. 9 - Pedestrian safety)	(b)
36.	Japan	17	E	Proposal for amendments to draft regulation on pedestrian safety (ECE/TRANS/WP.29/GRSP/2009/17)	(b)
37.	Japan and France	14	E	Proposal for amendments to GRSP-46-27	(a)
38.	France	18	E	Status report of the informal group on child restraints	(a)
39.	CLEPA	20(b)		Proposal for draft amendments to Regulation No. 80 (Strength of seats and their anchorages (buses))	(d)
40.	EC	8	E	Proposal for draft amendments to ECE/TRANS/WP.29/GRSP/2009/22 (Regulation No. 11 - Door latches and hinges)	(b)
41.	Japan	15(b)	E	Survey on the actual situation for infant-carrying vehicles results	(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

AMENDMENTS TO REGULATION No. 11

ADOPTED ON THE BASIS OF GRSP-46-07

(see para. 18 of the report)

Paragraphe 6.1.5.4, modifier comme suit:

"6.1.5.4 Sur les portes ~~arrières~~ **latérales** dont les charnières sont montées à l'arrière et qui peuvent être manœuvrées indépendamment des autres portes:

..."

Annex III

AMENDMENTS TO REGULATION No. 29

AMENDMENTS ADOPTED TO ECE/TRANS/WP.29/GRSP/2009/19

(see para. 25)

...

List of Annexes, amend to read:

"...

Annex 4 - Procedure for determining the "H" point and the actual torso angle for seating positions in motor vehicles.....
Appendix 1: Description of the three-dimensional H point machine
Appendix 2: Three dimensional reference system....."

Paragraph 2.1., amend to read:

"2.1. "approval of a vehicle" means the approval of a vehicle type pursuant to the requirements of this Regulation, with regard to the protection of the occupants of the cab of a vehicle in the event of head-on impact or of overturning, ~~for or shifting of the load;~~"

...

Paragraph 2.11., shall be deleted

...

Paragraph 4.4.3., shall be deleted

...

Paragraph 5.1.2., amend to read:

"5.1.2. Vehicles of categories N₁ and vehicles of categories N₂ with a gross vehicle mass not exceeding 7.5 t shall be subjected to the tests A and C, as described in Annex 3, paragraphs 5 and 7.
~~[At the choice of the manufacturer, these vehicles may also be subjected to test D].~~
However a vehicle type which has been approved according to Regulation No. 33 or to Regulation No. 94 may be considered to have satisfied the requirements on frontal impact (test A)."

...

Paragraph 5.1.3., amend to read:

"5.1.3 Vehicles of categories N₃ and vehicles of categories N₂ with a gross vehicle mass

exceeding 7.5 t shall be subjected to the tests A, B, and C, as described in Annex 3, paragraphs 5, 6 and 7.

~~[At the choice of the manufacturer, these vehicles may also be subjected to test D]."~~

Paragraph 5.1.6., amend to read:

"5.1.6. None of the tests A, B, C, ~~and D~~ need be carried out ..."

Paragraph 5.2.1., amend to read:

"5.2.1. After undergoing ... of 50 or more. ~~{No account shall be taken of non-resilient parts which can be moved away without any tools from the test manikin by using a force of less than {100} N}.~~

~~{To facilitate installation, the manikin may be inserted in dismantled form and assembled in the cab. For this purpose, the seat shall be adjusted to its most rearward position and the manikin completely assembled and so placed that its H point coincides with the R point. The seat shall then be moved forward to its median position for the assessment of the survival space.}~~
As an alternative to the test manikin defined in Annex 3, Appendix 2, a fiftieth percentile Hybrid **II or III** male dummy, with or without measuring instrumentation, the description of which is given in Regulation No. 94, may be used."

Paragraph 8.1., amend to read:

"8.1. The approval granted in respect of a vehicle type, pursuant to this Regulation, may be withdrawn if the requirement laid down in paragraph **7.1.** above is not complied with."

Paragraph 10.5., amend to read:

"10.5. As from **72** months after the date of entry into force of the 03 series of amendments Contracting Parties applying this Regulation shall grant ECE approval under this Regulation to the new types of cabs only if the requirements of this Regulation, as amended by the 03 series of amendments, are satisfied."

Paragraph 10.7., amend to read:

"10.7. Contracting Parties applying this Regulation shall continue to grant approvals to those types of vehicles which comply with the requirements of this Regulation as amended by the preceding series of amendments during the **72** months' period which follows the date of entry into force of the 03 series of amendments."

Annex 3

Paragraph 4, amend to read:

"4. Anchorage of the cab

For test A, the cab shall be mounted on a vehicle. For tests B, C ~~and D~~ the cab shall..."

Paragraph 5.1., amend to read:

"5.1. The impactor shall be made of steel and its mass shall be evenly-distributed; its mass shall not be less than 1,500 kg. Its striking surface, rectangular and flat, shall be 2,500 mm wide and 800 mm high (see b and h on Figure 1). Its edges shall be rounded to a radius of curvature of **10 mm ± 5 mm.**"

Paragraph 6.1., amend to read:

"6.1. The impactor shall be rigid and its mass shall be evenly-distributed; its mass shall not be less than 1,000 kg. The impactor shall be cylindrical with a diameter d of the cylinder of 600 ~~± 50~~ mm and a length b of not less than 2,500 mm. Its edges shall be rounded to a radius of curvature of not less than ~~15~~~~1.5~~ mm."

Paragraph 7.4.3., amend to read:

"~~7.4.3.~~ A linear bearing system **may** be included between the device and its supporting structure to allow for lateral motion of the cab roof away from the side that was impacted in the pre-load phase of paragraph 6.3., if applicable." ~~}~~"

Paragraphs 8. to 8.2.5. (including figure 4), shall be deleted

Annex 3 - Appendix 1,

Paragraphs 4. to 4.2., shall be deleted

Figure 1, amend to read:

"

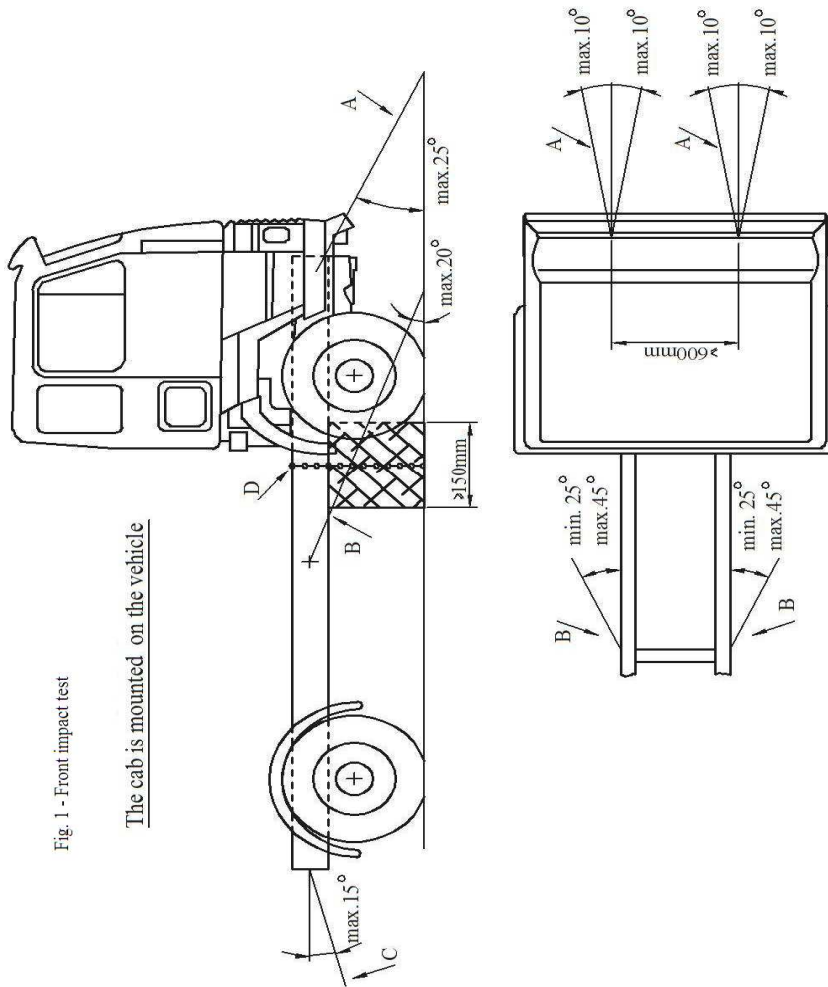


Fig. 1 - Front impact test

The cab is mounted on the vehicle

"

The table of the dimensions of the dummy, amend to read:

"

DIMENSION		
NAME	DESCRIPTION	DIM.IN MM
...
d	Forearm thickness	94
...
θ	Lateral rotation of the legs	{20}

"

Annex IV

AMENDMENTS TO REGULATION No. 100

AMENDMENTS ADOPTED TO ECE/TRANS/WP.29/GRSP/2009/16

(see para. 33)

Paragraph 1, amend to read:

1. SCOPE

The following prescriptions apply to safety requirements with respect to the electric power train of road vehicles of categories M and N, with a maximum design speed exceeding 25 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** ~~and the~~ high voltage components and systems which are galvanically connected to the high voltage bus of the electric power train.

Paragraph 2.3., amend to read:

2.3. "Conductive connection" means the connection using connectors to an external power supply when the **rechargeable energy storage system** (RESS) is charged.

Paragraph 5.1.1.5., amend to read:

5.1.1.5. Markings

5.1.1.5.1. The symbol shown in Figure 1 shall appear on or near the RESS. The symbol background shall be yellow, the bordering and the arrow shall be black.

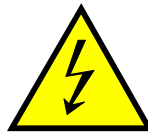


Figure 1 — Marking of high voltage equipment

5.1.1.5.2. The symbol shall also be visible on enclosures and barriers, which, when removed expose live parts of high voltage circuits. This provision is optional to any connector for high voltage buses. This provision shall not apply to any of the following cases:

- (a) **where barriers or enclosures cannot be physically accessed, opened, or removed; unless other vehicle components are removed with the use of tools**
- (b) **where barriers or enclosures are located underneath the vehicle floor.**

5.1.1.5.3. Cables for high voltage buses which are not located within enclosures shall be identified by having an outer covering with the colour orange."

...

Paragraphs 5.1.3.1. to 5.1.3.4., amend to read:

"5.1.3.1. Electric power train consisting of separate DC- or AC-buses

If AC high voltage ...value of 100 Ω /volt of the working voltage for DC buses, and a minimum value of 500 Ω /volt of the working voltage for AC buses.

The measurement shall be conducted according to Annex 4 "isolation resistance measurement method" ~~or a method equivalent to it.~~

5.1.3.2. Electric power train consisting of combined DC- and AC-buses

If AC high voltage buses and DC high voltage buses are galvanically connected isolation resistance between the high voltage bus and the electrical chassis shall have a minimum value of 500 Ω /volt of the working voltage.

However, if all AC high voltage buses are protected by one of the 2 following measures, isolation resistance between the high voltage bus and the electrical chassis shall have a minimum value of 100 Ω /volt of the working voltage.

...

- (b) Mechanically robust protections that have sufficient durability over vehicle service life such as motor housings, electronic converter cases or connectors.

The isolation resistance...to Annex 4 "Isolation Resistance Measurement Method" ~~or a method equivalent to it.~~

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.

(b) On-board isolation ... as described in Annex 5.

5.1.3.4. Isolation resistance requirement for the coupling system for charging the RESS

For the vehicle inlet intended to be conductively connected to the grounded external AC power supply and the electrical circuit that is galvanically connected to the vehicle inlet during charging of the RESS, the isolation resistance between the high voltage bus and the electrical chassis shall be at least $1\text{ M}\Omega$ when the charger coupler is disconnected. During the measurement, the traction battery may be disconnected.

Paragraph 11.2., amend to read:

"11.2. As from [36] months after the date of entry into force, Contracting Parties applying this Regulation shall grant approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 01 series of amendments."

Paragraph 11.4., amend to read:

"11.4. Contracting Parties applying this Regulation shall continue to grant approvals to those types of vehicles which comply with the requirements of this Regulation as amended by the preceding series of amendments during the [36] months' period which follows the date of entry into force of the 01 series of amendments."

If V_2 is greater than V_1 , ... (R_i) according to the formula shown. Divide this electrical isolation value (in Ω) by the nominal operating voltage of the high voltage bus (in volts).

Annex 4.

Paragraph 2.2.3.4., amend to read:

"2.2.3.4. ...

If V_2 is greater than V_1 , ... (R_i) according to the formula shown. Divide this electrical isolation value (in Ω) by the nominal operating voltage of the high voltage bus (in volts).

Paragraph 2.2.3.5., amend to read:

"2.2.3.5. Fifth step

The electrical isolation value R_i (in Ω) divided by the working voltage of the high voltage bus (in volts) results in the isolation resistance (in Ω/V).

NOTE 1: The standard known resistance R_o (in Ω) should be the value of the minimum required isolation resistance (in Ω/V) multiplied by the working voltage of the vehicle plus/minus 20 per cent (in volts). R_o is not required to be precisely this value since the equations are valid for any R_o ; however, a R_o value in this range should provide good resolution for the voltage measurements.†"

Annex 5.

"CONFIRMATION METHOD FOR FUNCTIONS OF ON-BOARD ISOLATION
RESISTANCE MONITORING SYSTEM

The function of the on-board isolation resistance monitoring system shall be confirmed by the following method ~~or a method equivalent to it.~~

..."

Annex V

AMENDMENTS TO REGULATION No. 80

AMENDMENTS ADOPTED TO ECE/TRANS/WP.29/GRSP/2009/18

(see para. 39)

...

Insert new paragraph 12.6., to read:

"12.6. Even after the date of entry into force of the 02 series of amendments, approvals of the components to the 01 series of amendments to the Regulation shall remain valid and Contracting Parties applying the Regulation shall continue to accept them and shall not refuse to grant extensions of approval to the 01 series of amendments to this Regulation."

...

Annex VI

INFORMAL GROUPS OF GRSP

<u>Informal group</u>	<u>Chairman</u>	<u>Secretary</u>
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Hydrogen and fuel cells - su-bgroup safety	Mr. Kazuyuki Narusawa Phone : +81 4-22413218 Fax : +81 4-22768604 Email : narusawa@ntsel.go.jp	USA
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