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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Passive Safety (GRSP)

REPORT OF THE WORKING PARTY ON PASSIVE SAFETY  
ON ITS TWENTY-SIXTH SESSION

(29 November - 3 December 1999)

1. GRSP held its twenty-sixth session from 29 November (afternoon) to 3 December (morning) 1999 under the chairmanship of Mr. C. Lomonaco (Italy). Experts from the following countries participated in the work: Belgium; Canada; Czech Republic; Finland; France; Germany; Hungary; Italy; Netherlands; Norway; Romania; Russian Federation; Spain; Sweden; Switzerland; United Kingdom; United States of America. A representative of the European Commission (EC) participated. Representatives of Japan took part in the session under paragraph 11 of the Commission's Terms of Reference. Experts from the following non-governmental organizations participated: International Organization for Standardization (ISO); International Touring Alliance / International Automobile Federation (AIT/FIA); Consumers International (CI); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); European Association of Automotive Suppliers (CLEPA); European Enhanced Vehicle-safety Committee (EEVC).

2. The documents without a symbol distributed during the session are listed in annex 1 to this report.

DRAFT REGULATION ON AIRBAGS

Documentation: TRANS/WP.29/1999/40; informal documents Nos. 1, 2, 15 and 24 of annex 1 to this report.

3. Consideration of this item was initiated by a presentation by the expert from Switzerland concerning the hearing damage due to airbag deployment (informal document No. 1). The document contained a proposal for a sound exposure limit (SEL # 25 dBCA).

4. The expert from the United States of America informed GRSP that in his country a study was being finalized, proposing the new concept of an "auditory damage unit (ADU)" and announced that he would present the results of the study at the next GRSP session. The expert from ISO announced that he would inform GRSP at the next session on the progress of the corresponding working group dealing with this issue.

5. The expert from Romania presented informal document No. 2 in which he proposed that a certificate should be issued indicating that the noise produced by airbag deployment would not produce permanent hearing damage for occupants who do not have pre-existing otologic diseases.

6. The expert from CLEPA pointed out that a prescription introducing a sound level limit to the airbag deployment should be applicable not only for replacement airbags but for all airbags installed in vehicles, and expressed his concerns about the method of measurement to be proposed.

7. GRSP agreed that it was necessary to find a solution to this issue, that it should be considered for people with normal hearing faculties and, finally, to wait for the conclusion of the study which was being undertaken in the United States of America.

8. The expert from CLEPA presented informal document No. 15 which contained amendments to the draft Regulation on replacement airbags (TRANS/WP.29/1999/40) in order to solve some inconsistencies detected. The Chairman explained that WP.29 had agreed that GRSP would consider these questions and find a solution.

9. Before studying the document, the Chairman asked the experts to evaluate if such Regulation was worthy, or if it would be better to abandon the idea of having such a Regulation annexed to the 1958 Agreement. GRSP expressed a favourable opinion to pursue the development of this Regulation.

10. To solve the difficulties pointed out by the expert from CLEPA, the expert from Germany tabled informal document No. 24. GRSP agreed to consider it at the next session and requested the secretariat to distribute this informal document with an official symbol.

AMENDMENTS TO ECE REGULATIONS

(a) Regulation No. 14 (Safety-belt anchorages)

Documentation: TRANS/WP.29/GRSG/1997/11; TRANS/WP.29/GRSP/1999/3/Rev.1; TRANS/WP.29/1999/38; informal documents Nos. 3, 16, 21, 25, 25 bis and 27 of annex 1 to this report.

11. The expert from France presented document TRANS/WP.29/GRSP/1999/3/Rev.1 which contained modifications and suggestions of the previous session (TRANS/WP.29/GRSP/25, para. 31) for prescriptions to safety-belts associated with load limiters.

12. GRSP expressed its general agreement with the proposal but some experts expressed their doubts concerning (i) the situation of non-deployment of an airbag, (ii) the use of 95 percentile adult male dummy, (iii) the safety-belt rupture, and (iv) the strength of seats. The expert from OICA presented informal document No. 16 which contained editorial corrections to document TRANS/WP.29/GRSP/1999/3/Rev.1.

13. To resolve the above-mentioned subject, the expert from France tabled informal document No. 25 bis, which superseded informal document No. 25, and the expert from the United Kingdom tabled informal document No. 27.

14. GRSP adopted document TRANS/WP.29/GRSP/1999/3/Rev.1 with the amendments contained in informal documents Nos. 16, 25 bis, and 27 and agreed to transmit it to WP.29 and AC.1 for consideration at their sessions of March 2000. The modifications of the document, as adopted by GRSP, are reproduced in annex 2 to this report. (Note by the secretariat: for WP.29 the proposal has been distributed under document symbol TRANS/WP.29/2000/24).

15. The expert from Consumers International stated that he was absolutely opposed to this amendment to Regulation No. 14, in its current form. He said that it completely failed to acknowledge that a safety-belt anchorage, mounted on a rear seat-back in a car, would be influenced both by safety-belt loads, and seat-back movement induced by luggage loading in a frontal impact. Without including a simulation of luggage in the proposed dynamic test, there was a risk of approving seat-mounted upper anchorages that would deflect excessively, or fail completely, in the foreseeable case where the belt was used with luggage in the car's luggage area in an impact.

16. GRSP agreed that the issue exposed by the expert from Consumers International was not related to the safety-belt anchorages (Regulation No. 14) but to the strength of seats and suggested that this expert could present a proposal to amend Regulation No. 17, if needed.

17. Before considering the "ISOFIX" issue, the expert from Japan made a declaration about the situation in his country. He explained to GRSP that public opinion was urging the Government to introduce the ISOFIX system for Regulations Nos. 14 and 44. He urged GRSP to take a definitive decision which would allow his country to adhere to both Regulations and to introduce the ISOFIX system in its national legislation.

18. The expert from the United Kingdom, Chairman of the informal group on ISOFIX, presented informal document No. 21, which contained the draft report of the group. As he had announced at the twenty-fifth session (TRANS/WP.29/GRSP/25, para. 39), the draft report only contained information necessary for GRSP to take a final decision. He announced that the final report would be available, once the informal group had considered and adopted it.

19. He explained to GRSP that the summary position of the informal group was:

- (i) An additional feature was necessary in addition to the lower anchorages, if ISOFIX universal restraints were to be adopted in the Regulation;
- (ii) Only one method, either a leg or a top tether, should be chosen;
- (iii) Due to the lack of time, the informal group had not made a choice between the two possibilities mentioned; however, some criteria for making a choice were included in the report.

20. The expert from Consumers International reminded GRSP that in the United States of America, Canada, and Australia the solution adopted to prevent rotation of the child restraint had been the top tether, and asked GRSP to choose the same device in order to achieve a world-wide harmonization.

21. GRSP thanked the expert from the United Kingdom and agreed that the question of the choice between the top tether or a leg would be resumed at the next session, taking into consideration the report of the informal group.

22. The expert from Japan, recalled his declaration (para. 17 above) and stated that his country, depending on public opinion, might need to take a decision before the next GRSP meeting.

23. Following the request of WP.29 (TRANS/WP.29/689, paras. 8 and 90-92), GRSP considered document TRANS/WP.29/1999/38, the consideration of which had been postponed by WP.29 at its one-hundred-and-nineteenth session.

24. The expert from Belgium explained to GRSP that his country could not accept the reduction of the safety-belt anchorage spacing in the central rear seating position from 350 mm to 240 mm. The expert from Consumers International presented a videotape showing the difficulties in buckling the safety-belt with such a distance between two anchorages.

25. The expert from Germany explained that, with the reduced anchorage spacing, it should not be difficult to buckle the safety-belt because it would only mean that the buckle connection to anchorage would be longer and he insisted that the passengers' safety not only would be maintained but improved, because with this new arrangement the safety-belt would not be crossed with the next one. To support his explanations, he presented a videotape.

26. The experts from Canada, Czech Republic, France, Germany, Hungary, Italy, Norway, Romania, Russian Federation, Spain and Japan expressed their support for the proposal. The experts from Belgium, Sweden and the United Kingdom opposed the proposal.

27. The expert from Spain proposed to prepare a device with the dimensions of the proposal and to bring it for demonstration at the next session. He suggested that experts could test the arrangement and verify if it would be difficult to buckle the safety-belt. GRSP agreed to resume consideration of this issue at the next session. It also accepted the initiative of the expert from the Netherlands to prepare a written proposal improving the text of document TRANS/WP.29/1999/38.

28. The expert from OICA made a presentation of a proposal for a draft global technical regulation on safety-belt anchorages (informal document No. 3). He said that it was articulated in two parts: the first, containing the general philosophy of the proposal and the main differences between the current Regulation No. 14 and FMVSS No. 210, and the second, containing the proposal for the global technical regulation. He pointed out also that the proposal had been based on the 04 series of amendments to Regulation No. 14 and should be adapted to its 05 series of amendments.

29. GRSP thanked the expert from OICA for the work done and requested him to provide the secretariat with a table showing the differences between Regulation No. 14, FMVSS No. 210, and the Japanese standard. The secretariat was requested to distribute such a table as an official document for consideration at the next session. GRSP also agreed that experts should send comments on the proposal to the OICA expert, in order to allow him to update the proposal to be considered at the May 2000 session.

(b) Regulation No. 16 (Safety-belts)

Documentation: TRANS/WP.29/GRSP/1999/12; informal documents Nos. 7, 14, and 17 of annex 1 to this report.

30. The expert from Spain introduced document TRANS/WP.29/GRSP/1999/12 which contained a draft corrigendum to allow the installation of safety-belts in vehicles type approved conforming to any equivalent approval to Regulation No. 94. The expert from OICA presented informal document No. 17 addressing the same matter, but with a different wording.

31. GRSP adopted document TRANS/WP.29/GRSP/1999/12, as reproduced below, with a concrete reference to the European Directive 96/79/EC. GRSP also agreed to transmit it to WP.29 and AC.1, for their sessions in March 2000 (Note by the secretariat: see TRANS/WP.29/2000/25).

Annex 1, item 11 footnote 4/, amend to read:

".... is approved to Regulation No. 94, 01 series of amendments, or to European Directive 96/79/EC."

32. The expert from Japan presented informal document No. 14 in which he proposed to reduce the lower limit of the retracting force of the strap from 0.2 daN to 0.1 daN. (paragraph 6.2.5.3.4. of the Regulation). GRSP agreed in principle with the proposal, but the experts from the European Commission, the Netherlands and the United Kingdom requested, before taking a final decision, to verify the reason why the value of 0.2 daN had been chosen in the current version of the Regulation. Finally, GRSP agreed to resolve this matter at its next session of May 2000.

33. The expert from CLEPA presented informal document No. 7. He explained to GRSP that the aim of the proposal was to align the prescriptions of Regulation No. 16 with those of European Community Directive 77/541/ECC. The proposal, reproduced below, received in principle the support of GRSP. Nevertheless, at the request of some experts, in order to have more time to consider it, GRSP agreed to take a final decision at its next session in May 2000.

Paragraph 6.4.1.3.2., amend to read:

"... 100 and 300 mm at chest level. In the case of a harness belt the minimum displacements specified above may be reduced by half. These displacements are ...."

(c) Regulation No. 17 (Strength of seats)

Documentation: TRANS/WP.29/GRSP/1997/1; TRANS/WP.29/GRSP/1997/6; informal documents Nos. 18 and 23 of annex 1 to this report.

34. The expert from OICA presented a draft corrigendum to the scope of Regulation (informal document No. 18). GRSP considered and adopted the proposal as reproduced in annex 3 to this report, and agreed to transmit it for consideration to WP.29 and AC.1 at their sessions of March 2000 (Note by the secretariat: see document TRANS/WP.29/2000/27).

35. The Chairman recalled that document TRANS/WP.29/GRSP/1997/6 had been considered and adopted in principle up to paragraph 1.3., but for the rest of the document, several reservations had been established. In that context, the expert from Spain presented informal document No. 23 which amended his proposal of document TRANS/WP.29/GRSP/1997/6.

36. GRSP considered the proposal and requested the secretariat to elaborate a new document, incorporating the amendments suggested by Spain and complemented by the expert from CLEPA. It also agreed to consider the new document at the next session. Nevertheless, the expert from Italy expressed his opposition to the general criteria of the amendment transmitted by the expert from Spain.

37. GRSP continued the consideration of document TRANS/WP.29/GRSP/1997/1. It noted that no new data had been provided demonstrating that further improvement of Regulation No. 17 after the entry into force of its 07 series of amendments was necessary as had been requested at the previous session. (TRANS/WP.29/GRSP/25, para. 50).

38. The Chairman reminded GRSP that, following the adoption of amendments to Regulation No. 14 and the statement of the expert to Consumers International, a new proposal was expected, in order to amend Regulation No. 17 (see paragraphs 14 to 16 above).

(d) Regulation No. 21 (Interior fittings)

Documentation: TRANS/WP.29/GRSP/1998/17; TRANS/WP.29/GRSP/1999/9; TRANS/WP.29/GRSP/1999/11; informal documents Nos. 4 and 19 of annex 1 to this report.

39. GRSP considered and adopted document TRANS/WP.29/GRSP/1999/9, which had been presented at the previous session as an informal document (TRANS/WP.29/GRSG/25, para. 56). It agreed to transmit it to WP.29 and AC.1 for consideration at their March 2000 sessions, if possible, as Corrigendum 1 to the 01 series of amendments (Note by the secretariat: see document TRANS/WP.29/2000/27).

40. The expert from the United States of America presented informal document No. 19, justifying the proposal of document TRANS/WP.29/GRSP/1998/17. He also explained why he could not agree with the Spanish proposal of document TRANS/WP.29/GRSP/1999/11, and suggested some modifications to this Spanish document. He recommended to study the prescriptions of document TRANS/WP.29/GRSP/1998/17 in conjunction with the researches of the EEVC as a basis for amending Regulation No. 21.

41. The expert from EEVC briefed GRSP about the progress of the research of the head impact test inside a vehicle and summarized the main results which showed that the free motion headform tests of FMVSS rule No. 201 were the best and correctly identified the impact zone. He explained to GRSP that all data were coherent and announced that only the impact angle should be verified before releasing a proposal for final validation tests. He also confirmed that research made in Germany, the United Kingdom and in the United States of America showed very similar results.

42. The expert from Germany presented informal document No. 4 which showed the evolution of the interior fitting of cars during the last twenty-one years. He suggested that an informal group should be created in order to elaborate a proposal for amending Regulation No. 21.

43. GRSP noticed that all the proposals tabled converged on the idea of rationalizing the Regulation and could be considered as a good basis for a drafting group in charge of drafting a proposal to amend Regulation No. 21. GRSP agreed that such drafting group should meet under the chairmanship of the expert from Germany in order to clarify the ideas considered and make a concrete proposal taking into consideration the research made by EEVC.

(e) Regulation No. 29 (Cabs of commercial vehicles)

Documentation: TRANS/WP.29/GRSP/1998/13; TRANS/WP.29/GRSP/1999/1; informal documents Nos. 11 and 20 of annex 1 to this report.

44. As requested by the Chairman, the expert from EEVC explained to GRSP that Working Party 16 of EEVC had begun considering applying Regulation No. 94 or its equivalent European Community Directive 96/79/EC to N1 category of vehicles, derived from M1 category. He also said that for N1 vehicles with a gross mass exceeding 2.5 tonnes the inclusion in the scope of Regulation No. 94 seemed to be unrealistic.

45. The expert from the United Kingdom presented informal document No. 11. He explained that it contained the results of a three-year research programme and that more precise conclusions should be made available for consideration at the 2000 sessions of GRSP.

46. The expert from Romania presented informal document No. 20 in which he proposed a new definition of the scope of Regulation No. 29.

47. The Chairman agreed that, before amending Regulation No. 29 it was necessary to define properly its scope. He suggested dividing the scope into three principal categories:

- (i) Vehicles with a gross vehicle mass less than 2.5 tonnes, which should be covered by Regulation No. 94;
- (ii) Vehicles with a gross vehicle mass above 7.0 tonnes and
- (iii) Vehicles with a gross vehicle mass from 2.5 up to 7.0 tonnes

48. GRSP agreed in principle with the statement of the Chairman. The expert from Germany suggested a new definition of the scope of Regulation No. 29, based on the proposal by the expert from Romania, and reproduced below:

Paragraph 1., amend to read:

"1. SCOPE

This Regulation applies to vehicles of categories: N2 with separate driver's cab and a maximum permissible mass of 2.5 tonnes, and N2 and N3 with separate driver's cab. Vehicles of category N1, derived from vehicles of category M1 are excluded of the scope of this Regulation.

This Regulation does not apply to agricultural tractors and machinery."

49. GRSP adopted in principle the text of document TRANS/WP.29/GRSP/1998/13 with the amendment reproduced below, and agreed to consider the scope proposed by the expert from Germany and reproduced in the above paragraph at the next session.

Annex 3, paragraph 4.2.2., delete the phrase "until the lower edge of that face reaches its lowest allowed position closely over the front bumper connected directly to the frame of the vehicle".

(f) Regulation No. 44 (Child restraints)

Documentation: TRANS/WP.29/GRSP/1997/12; TRANS/WP.29/GRSP/1999/4/Rev.1; TRANS/WP.29/GRSP/1999/10; informal documents Nos. 5, 8, 12, 13, 22 and 28 of annex 1 to this report.

50. For document TRANS/WP.29/GRSP/1997/12 related to the ISOFIX system, GRSP agreed to postpone its consideration similarly as agreed for Regulation No. 14 (see para. 21 above).

51. The expert from Sweden presented informal document No. 5 which contained a proposal introducing a definition of the floor pan of the test trolley, if introduced in Regulation No. 44, in order to sufficiently test and enable the use of a supporting leg in conjunction with ISOFIX child restraint systems.

52. Awaiting the final decision concerning the ISOFIX system, GRSP requested the secretariat to distribute informal document No. 5 with an official symbol for consideration at the session of May 2000.

53. GRSP considered documents TRANS/WP.29/GRSP/1999/4/Rev.1 and TRANS/WP.29/GRSP/1999/10 together with informal document No. 8, transmitted by the expert from CLEPA, and containing proposals taken out from document TRANS/WP.29/GRSP/1999/4, necessary to be reinstalled.

54. To complete document TRANS/WP.29/GRSP/1999/10, the experts from OICA and CLEPA tabled informal document No. 28.

55. GRSP adopted the documents mentioned in paras. 53 and 54 above with the exception of paragraph 7.1.2.2. of informal document No. 8. The amendments to documents TRANS/WP.29/GRSP/1999/4/Rev.1 and TRANS/WP.29/GRSP/1999/10 are reproduced in annex 4 to this report (Note by the secretariat: published under document symbol TRANS/WP.29/2000/29). It was also agreed to transmit the proposal for amending Regulation No. 44 to WP.29 and AC.1 for consideration at their sessions of March 2000. Nevertheless, the expert from France made a study reservation concerning the proposals contained in informal document No. 8.

56. The expert from Japan presented informal documents Nos. 12, 13 and 22. In informal document No. 12 Japan wished to clarify the possibility of using an accelerating sled device to obtain the curve of the trolley's deceleration as a function of time. The amendments to Regulation No. 44 to allow this alternative method were included in informal document No. 22.

57. GRSP agreed in principle with the concept proposed by the expert from Japan, but requested more time to consider the proposal of informal document No. 22. To facilitate its consideration, GRSP requested the secretariat to distribute informal document No. 22 with an official symbol, for consideration at the next session of May 2000.

58. In informal document No. 13, the expert from Japan informed GRSP that his country was envisaging the adoption of Regulation No. 44. He explained that the application of the Regulation would prohibit the use of such restraints systems as T-shield or webbing sense ELR belt and asked for clarification of the reasons for excluding these systems.

59. GRSP kindly requested the expert from CLEPA to provide the information required by the expert from Japan.

(g) Regulation No. 80 (Strength of seat in public service vehicles)

Documentation: TRANS/WP.29/GRSP/1999/8.

60. GRSP noticed that document TRANS/WP.29/GRSP/1999/8 was the reproduction of an informal document which had been transmitted by the expert from the Czech Republic at the twenty-fifth session (TRANS/WP.29/GRSP/25, para. 45).

61. GRSP adopted the proposal and agreed to transmit it to WP.29 and AC.1 for consideration at their sessions of March 2000 (Note by the secretariat: see document TRANS/WP.29/2000/30).

(h) Regulation No. 94 (Frontal collision protection)

Documentation: TRANS/WP.29/GRSP/1999/5; informal document No. 6 of annex 1 to this report.

62. To complete his proposal (TRANS/WP.29/GRSP/1999/5), the expert from Consumers International presented informal document No. 6, and recalled the consideration of labelling for Regulation No. 94 during the one-hundred-and-eighteenth session of WP.29 (TRANS/WP.29/680, para. 79). Concluding his presentation he proposed to amend Regulation No. 94 in line with the proposals of document TRANS/WP.9/GRSP/1999/5 and, in addition, to apply the four following principles.

- (i) Compliance with labelling requirements should be verified at the type approval of the vehicle;
- (ii) The manufacturer should be required to demonstrate that a range of labels exists for the vehicle in question, providing the required pictogram and text warning, in at least one language of each country in which the vehicle is intended to be sold;
- (iii) The manufacturer must demonstrate that there is a provision to permanently attach the labels to the vehicles in the required positions;
- (iv) The manufacturer must demonstrate that a system exists to ensure that the correct language label is attached before the vehicle is sold. This system can operate either at the manufacturing site, via the importer or in the sales outlet.

63. The expert from OICA congratulated the expert from Consumers International for understanding the position of OICA. He noticed that the ideas expressed in informal document No. 6 complied well with the position of OICA as mentioned in the previous session (TRANS/WP.29/GRSP/25, paras. 72-74). Nevertheless, he insisted on OICA's position of having a label with a pictogram only, without any text. Finally, he remarked that no Contracting Party to Regulation No. 94 had expressed its support for having a text on the label. In addition, he proposed to delete the amendment to paragraph 6.2.2. proposed in document TRANS/WP.29/GRSP/1999/5.

64. The expert from the United Kingdom expressed his opinion that an agreement concerning this particular amendment to Regulation No. 94 should be reached at the next session, but his position received no immediate support.

65. The expert from OICA offered to prepare a new proposal for the next session based on the four principles of informal document No. 6 (see para. 62 above) and considering all the possibilities, including the switching-off of the passenger airbag.

(i) Regulation No. 95 (Lateral protection collision)

Documentation: Informal document No. 26 of annex 1 to this report.

66. The expert from EEVC made a presentation of the final part of the programme of mobile barrier design (MBD) which the WG13 of EEVC had finalized. He informed GRSP that EEVC was developing a special test with the assistance of a group of experts from JASIC; JAMA; EC and EUROCAM. Finally a panel of experts of WG13 had prepared a report which will be sent to the plenary session of EEVC in January. He estimated that a final report from EEVC should be available for consideration at the May 2000 session of GRSP.

67. He also explained to GRSP that the objective of the work was neither redefining the MDB face nor making the EEVC/EC/ECE side impact test procedure more or less severe than the current test, but to define the requirements for MDB in such a way that it:

- (i) would approximate the EEVC performance corridor targets,
- (ii) would be repeatable,
- (iii) did not deform in an unstable nor uncontrollable manner when impacting cars, and
- (iv) would not be single sourced.

The expert from EEVC also explained the options proposed by the expert panel and accepted by WG13 as possible ways forward. Details of these options were distributed in informal document No. 26.

68. GRSP thanked the expert from EEVC and agreed to await the final report by EEVC, and to keep the subject on the agenda for the next session.

OTHER BUSINESS

(a) Exchange of information on national and international requirements on passive safety

69. The expert from the European Community informed GRSP about the new projects of European Community Directives: pedestrian protection; frontal and lateral collision and the frontal and rear impact based on Regulation No. 93. He also said that the adaptation to the technical progress of European Community Directive 74/60/ECE on interior fittings was in the procedure of a second lecture by the European Parliament, and that the adaptation to the technical progress of the European Community Directive on safety-belts had been noted by the corresponding Committee in June 1999.

(b) Regulation No. 22 (Protective helmets)

Documentation: TRANS/WP.29/1999/39; informal documents Nos. 9, 10 and 29 of annex 1 to this report.

70. The Chairman informed GRSP that WP.29 had adopted at its one-hundred-and-nineteenth session (November 1999) the draft 05 series of amendments to the Regulation (document TRANS/WP.29/694), but that some linguistic inaccuracies had been detected in the wording. WP.29 had therefore mandated GRSP to produce a corrigendum.

71. The expert from Italy presented informal document No. 29 incorporating also the proposals of documents Nos. 9 and 10, by the United Kingdom, as Corrigendum 1 to the 05 series of amendments to Regulation No. 22.

72. GRSP considered and adopted informal document No. 29 and agreed to transmit it to WP.29 and AC.1 for consideration at their sessions of March 2000. (Note by the secretariat: the adopted corrigenda was issued under document symbol TRANS/WP.29/2000/28).

73. The Chairman thanked the experts from the United Kingdom and Italy for their work which allowed the expedient adoption of the corrigenda.

(c) Sled test procedure for dummy test in rear impacts

74. The secretariat informed GRSP that a study considering a sled test procedure for dummy test in rear impacts had been received from the university of Graz (Austria). According to the authors the aim of the study was to elaborate a new Regulation and a European Directive. The secretariat explained that the author of the study had already been informed that a draft proposal either for a new Regulation or for a new European Commission Directive should be transmitted through the competent authorities of the country and received an assurance that the University of Graz had established the contacts with the Austrian authorities to follow the procedure.

75. Copies of the study were distributed to the experts and the secretariat provided the university contact address:

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#### AGENDA FOR THE NEXT SESSION

76. For the twenty-seventh session, to be held in Geneva from 8 May (14.30h) to 12 May (12.30h) 2000 1/, GRSP agreed on the following agenda:

1. Draft Regulation on airbags - development
2. Amendments to ECE Regulations
  - 2.1. Regulation No. 12 (Steering systems)
  - 2.2. Regulation No. 14 (Safety-belt anchorages)
  - 2.3. Regulation No. 16 (Safety-belts)
  - 2.4. Regulation No. 17 (Strength of seats)
  - 2.5. Regulation No. 21 (Interior fittings)
  - 2.6. Regulation No. 29 (Cabs of commercial vehicles)
  - 2.7. Regulation No. 44 (Child restraints)
  - 2.8. Regulation No. 94 (Frontal collision protection)
  - 2.9. Regulation No. 95 (Lateral collision protection)
3. Other business
  - 3.1. Exchange of information on national and international requirements on passive safety.

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1/ As part of the secretariat's efforts to reduce expenditure, all the official documents distributed prior to the session by mail will not be available in the conference room for distribution to session participants. Delegates are kindly requested to bring their copies of documents to the meeting.

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Annex 1LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT  
A SYMBOL DURING THE TWENTY-SIXTH SESSION

<u>No.</u>	<u>Transmitted</u>	<u>Agenda item</u>	<u>Language</u>	<u>Title</u>
1.	Switzerland	1.	E	Hearing damage due to airbag deployment. Proposal for a sound exposure limit
2.	Romania	2.5.	E	Proposal for draft amendments to Regulation No. 29
3.	OICA	2.1.	E	Draft proposal for a global technical regulation: Safety-belt anchorages
4.	Germany	2.4.	E	Revision of ECE Regulation No. 21: Interior fittings of vehicles.
5.	Sweden	2.6.	E	Proposal for a draft amendment to Regulation No. 44
6.	Consumers International	2.8.	E	A proposal for draft amendments to Regulation No. 94 to improve the warning about hazards from airbags
7.	CLEPA	2.2.	E	Draft amendment to Regulation No. 16: Harness belts
8.	CLEPA	2.6.	E	Proposal for draft amendments to Regulation No. 44 (Child-restraints)
9.	United Kingdom	3.2.	E	Proposal for a draft corrigendum to Regulation No. 22 (Protective helmets)
10.	United Kingdom	3.2.	E	Proposal for draft amendments to draft corrigendum to Regulation No. 22 (Protective helmets)
11.	United Kingdom	2.5.	E	Development of a new cab strength standard.

<u>No.</u>	<u>Transmitted</u>	<u>Agenda item</u>	<u>Language</u>	<u>Title</u>
12.	Japan	2.6.	E	Clarification concerning device for child restraint approval tests.
13.	Japan	2.6.	E	Japan's action towards the adoption of ECE Regulation No. 44: Child restraint systems.
14.	Japan	2.2.	E	Proposal for draft amendment to Regulation No. 16 (Safety-belts)
15.	CLEPA	1.	E	Comment on document TRANS/WP.29/1999/40
16.	OICA	2.1.	E	Proposal for draft amendments to Regulation No. 14 (TRANS/WP.29/GRSP/1999/3/Rev.1) OICA comments
17.	OICA	2.2.	E	Proposal for a draft corrigendum to R16.04, Supplement 9. OICA comments to the Spanish proposal TRANS/WP.29/GRSP/1999/12
18.	OICA	2.3.	E	Proposed corrigendum to ECE R17, 07 series of amendments
19.	USA	2.4.	E	Regulation No. 21 - Interior fittings
20.	Romania	2.5.	E	Proposal for draft amendments to Regulation No. 29
21.	United Kingdom	2.1.	E	Draft ISOFIX report of informal group to GRSP
22.	Japan	2.6.	E	Proposal for draft amendment to Regulation No. 44
23.	Spain	2.3.	E	Possible simplification of document TRANS/WP.29/GRSP/1997/6
24.	Germany	1.	E	Amendments proposed to document TRANS/WP.29/1999/40

<u>No.</u>	<u>Transmitted</u>	<u>Agenda item</u>	<u>Language</u>	<u>Title</u>
25.	France	2.1.	E	Amendments to document TRANS/WP.29/GRSP/1999/3/Rev.1
25bis	France	2.1.	E	Amendments to document TRANS/WP.29/GRSP/1999/3/Rev.1
26.	EEVC	2.9.	E	Options produced by the expert panel and accepted by EEVC WG13 as possible ways forward
27.	United Kingdom	2.1.	E	Proposed amendment to document TRANS/WP.29/GRSP/1999/3/Rev.1
28.	OICA, CLEPA	2.6.	E	Amendments to Regulation No. 44
29.	Italy	3.2.	E	Proposal for a draft corrigendum to Regulation No. 22
-	University of Technology Graz	3.3.	E	A sled test procedure for dummy tests in rear impacts

Annex 2

DRAFT AMENDMENTS TO REGULATION No. 14 ADOPTED BY GRSP  
(document TRANS/WP.29/GRSP/1999/3/Rev.1)

Insert a new paragraph 4.4.3., to read:

"4.4.3. The letter "e", to the right of the number of this Regulation in the case of type-approval according to the dynamic test of annex 7."

Annex 7 (new)

Paragraph 2.3., amend to read:

"..... seating position in the vehicle, and shall in particular identify those seating positions which may only be fitted with an appropriate safety-belt equipped with a load limiter."

Paragraph 3.2.1., amend the word "trolley" to read "sled" (two times).

Paragraph 3.2.2., amend the word "trolley" to read "sled" (once).

Paragraph 3.2.3.1., amend to read:

"..... specifications.  
The vehicle environment facing the tested seat (dashboard, seat, etc. depending on the tested seat) can be mounted on the test sled. If there were a frontal airbag, it has to be deactivated."

Paragraph 3.2.3.2., amend the word "trolley" to read "sled" (once).

Paragraph 3.1.4., amend to read:

"3.2.4. Dummies

A dummy whose dimensions and mass are defined in annex 8 shall be positioned on each seat and restrained by the safety-belt provided in the vehicle.

No dummy instrumentation is required."

Paragraphs 3.3. to 3.3.3., amend to read:

"3.3. Test

3.3.1. The sled shall be so propelled that, during the test, its speed variation is 50 km/h. The sled deceleration shall be within the corridor specified in annex 8 of Regulation No. 16.

3.3.2. If applicable, the activation of additional restraining devices (preloading devices, etc .... except airbags) is triggered according to the car manufacturer's indications.

3.3.3. It shall be checked that the safety-belt anchorages' displacement does not exceed the limits specified in paragraphs 2.1. and 2.1.1. of this annex."

Insert a new annex 8, to read:

"Annex 8

DUMMY SPECIFICATIONS \*/

Mass	97.5 ± 5 kg
Erect sitting height	965 mm
Hip breadth (sitting)	415 mm
Waist circumference (sitting)	1200 mm
Chest depth	265 mm
Chest circumference	1130 mm
Shoulder height	680 mm
Tolerance on all length dimensions	± 5 per cent

Remark: a sketch explaining the dimensions is given in the figure below

(FIGURE OFFSET)

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\*/ Devices described in rules Australian Design Rule (ADR) 4/03 and Federal Motor Vehicle Safety Standard (FMVSS) No. 208 are considered equivalent"

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Annex 3

DRAFT CORRIGENDUM 1 TO THE 07 SERIES OF AMENDMENTS TO  
REGULATION No. 17 ADOPTED BY GRSP

Paragraph 1., amend to read (footnotes 1/ and 2/ unchanged):

- "1. "This Regulation applies to the strength of seats, to their anchorages and to their head restraints, of vehicles of categories M1 and N, and to the strength of seats, to their anchorages and to their head restraints, of vehicles of categories M2 and M3, not covered by Regulation No. 80, 01 series of amendments. 1/ 2/

It also applies to the design of the rear parts of seat-backs 2/ and to devices intended to protect the occupants from the danger resulting from the displacement of luggage in a frontal impact, of vehicles of category M1.

It does not apply to folding, side-facing or rearward-facing seats, or to any head restraint fitted to these seats."

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Annex 4

ADDITIONAL DRAFT AMENDMENTS (SUPPLEMENT 3 TO THE 03 SERIES)  
TO REGULATION No. 44 ADOPTED BY GRSP \*/  
(document TRANS/WP.29/GRSP/1999/4/Rev.1  
and TRANS/WP.29/GRSP/1999/10)

Paragraph 6.2.1.3., amend to read:

"6.2.1.3. If it is possible to change the inclination of the restraint, this change in inclination shall not require manual readjustment of the straps. A deliberate hand-action is required in order to change the inclination of the restraint."

Paragraph 7.1.5.1. (new), amend to read:

"7.1.5.1. Buckle assemblies, retractors, adjusters and lock-off devices that are liable to be affected by temperature, shall be subject to the temperature test specified in paragraph 8.2.8. below."

Paragraph 7.2.1.2., amend to read:

" ... and shall be measured rectangular to the direction of movement of the release button."

Paragraph 8.1.3.6.3.4., amend to read:

"..... masking tape of sufficient length and width. In the case of rear facing restraints, it is permitted to use a light-weight masking tape to connect the dummy's head to the 100 mm bar or the back of the restraint during the sled acceleration."

Paragraphs 8.2.8.1. (new), amend to read:

"8.2.8.1. The components specified in paragraph 7.1.5.1. shall be exposed to an environment over a water surface .....

- (ii) an environment having a temperature of not more than 0°C shall be maintained for a continuous period of 6 hours and this environment shall be attained within 90 minutes; then

....."

Paragraphs 14.3.15. and 14.3.16., amend to read:

"14.3.15. If the child restraint offers an alternative load bearing contact point, its use shall be described clearly. The user shall be informed about how to judge if use of this alternative route is satisfactory. The user shall be advised to contact the child restraint manufacturer if in doubt about this point. The user shall be clearly advised to begin the child restraint installation, in vehicle seating positions categorized as "Universal" in the vehicle owner's manual, by using the primary belt route.

14.3.16. There shall be provisions made so that the instructions can be retained on the child restraint for its life period or in the vehicle handbook in the case of built-in restraints."

Annex 13,

Paragraph 3., amend to read:

".....  
The value of X in Figure 1 below is  $200 \pm 5$  mm. The value of P-A1 for "universal" and "semi-universal" restraints is  $2220 \pm 5$  mm ..... The value of P-A1 for "restricted" child restraints is at least  $2220 \pm 5$  mm, measured parallel to the centreline ....."

Annex 15,

Insert a new note to paragraph 6.1.8., to read:

"Paragraph 6.1.8.

The 150 mm requirement also applies to carry cots, except if a special device is used to link the carry cot and the safety-belt."

Annex 18,

Paragraph 1., amend to read:

"..... of the child seat. In the case of carry cot devices the lower limit of area at which material complying with annex 17 shall be used shall be all areas forward of the smaller dummy's rearward shoulder when measured with this dummy in the carry cot and the carry cot positioned on the test bench."

Annex 21

Insert a new paragraph 1.2.4., to read:

"1.2.4. Before commencing the set-up check the child restraint to determine compliance with paragraph 6.2.1.3. If there is a change in installation tension due to the change of angle function, then test

for the condition which creates the slackest installation, conduct the set-up and tension in the tightest position and then reposition the child restraint to the worst case without re-tensioning the adult belt. Conduct the dynamic test."

Insert a new note 4., to read:

- "4. In the case of restraints fitted with devices intended to increase the adult safety-belt tension, the test method shall be: Install the child restraint system in this annex and then apply the tensioner device as stated in the manufacturer's instructions. If the device cannot be applied due to excess tension then it is deemed to be an unacceptable device."
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