Minutes   GRB Informal Group 4th meeting

1. Chairman welcomed the group and thanked Mr. Pippione as a representative of the Italian delegation for organizing and hosting the meeting as well as the generous invitation for dinner.

2. Agenda was adopted.

3. Minutes (see WP024) were adopted with changes as listed below:
   - Referring to Para 4.1: to be added, “answering a question of NL, Mr. Steven stated that the relatively high noise level of the N1 vehicles is caused by the limit value and has nothing to do with categorization and/or test method”
   - Referring to Para 4.2: to be added, “The concern of this type of vehicles in terms of noise emission was recognized by the members of the group”.
   - Referring to Para 4.3: NL requested that the GRB Informal Group has to clearly explain why it has adopted the position not to separate noise sources as ETRTO proposed.
   - Referring to 4.4 (WP015):
     • Para 3.2.4 to read: not accepted
     • Para 3.3 no change. Sentence thereafter belongs to new item 3.4
     • Para 3.4 not accepted. Discussion in next GRB meeting necessary. OICA requested to come up with an official paper.
   - Referring to 5. (WP018):
     • Para 5.9 (p6): E and NL do need this information, whilst F, D and COMM do not.
     • Para 2.2.2 (p18): The UK position on tread depth is for open requirements; between the legal limit and 100% tread depth. The UK will provide their final position at the next meeting. The final decision will be taken during the next meeting.

4. Agenda items 4 and 5 were not discussed separately, but together.

4.1 NL gave a presentation on pre-acceleration (see WP026). Acceleration delay can have a significant effect on the average acceleration in the pass by test. The influence of this acceleration delay on the pass by test can be avoided by using a pre-acceleration phase before starting the test runs. ISO stated its position ”pre-acceleration could be used, but it has to be mentioned in the test report if pre-acceleration was applied”. D and NL accepted ISO’s position.

4.2 ISO reported on its last meeting in Beaune (26 –28 Jun 03). Based on WP025 there were lengthy discussions on several issues, which finally led to amendments.
   - P11 Annex 1: there was a proposal from F to simplify this annex (see CRP016). Mr. Fichieux shall prepare a new reworked Annex 1, as well as a structure for a test report for the next meeting
   - P17 Para 1.14 to read: “The road speed of the vehicle shall be measured with a continuous measurement device meeting specifications limits of +/−1 km/h or less.” Experts from OICA and ISO are convinced that problems with evaluating acceleration values could be dramatically reduced by using such a continuous measuring device. NL finally also agreed.
   - P17 Para 1.1.5: to be maintained in the text as it is, since there is reference to this data in Annex 1 of p13.
- P17 Para 2.1: work on ISO 10844 is still going on.
- P18 Para 2.2.1 added: “The test mass shall be achieved with a tolerance of +/- 5%.” This may reduce problems of loading N2 and N3 vehicles.
- P18 Para 2.2.1: to amend table for N1 < 2000kg and for N1 > 2000kg. There were objections from Italy with regard to loading of N1 vehicles → issue will be addressed to GRB. It was decided to put Para on loading of N1 vehicles in [] and to add a footnote “Decision should be taken after evaluation of data during first GRB meeting in 2004.”
- P18 Para 2.2.1: ISO was asked to amend this Para for the next meeting as well as Para 3.1.2.1 in order to include M2 vehicle category below 3500 kg. That means to split category M2. The low weight M2 category like the “Mercedes Sprinter” corresponds to N1. This category of vehicle are buses for carrying people, so loading as M2 vehicles does not seem to be reasonable.
- P18 Para 2.2.2: tread depth of at least 80 per cent of the full tread depth was once again discussed. UK did not want to delay progress, so [] were deleted. Italy also agreed.
- P19 Para 3.1.1.5: a tolerance of +/- 1km/h was introduced
- P20 Para 3.1.1.6.1: ISO will rework Para 3.1.1.6.1 – 3.1.1.6.3 and Mr. Steven will supply data as a basis for decision. Mr. Steven gave a short presentation on different regression lines for acceleration. He is aiming at creating one formula each for \( a_{WOT} \) and \( a_{urban} \), which cover all; i.e. low and high kW/to ranges. So, Mr Steven was asked to prepare a paper with detailed information for next meeting.
- P21 Para 3.1.1.6.4: PMR definition was introduced. PMR = \((P_n/m_{ref})*1000\).
- P22 Para 3.1.2.1.5.2 and Para 3.1.2.1.5.3 shall be combined to one Para → ISO to prepare proper wording for next meeting.
- P23 Para 3.1.2.1.6 amended: “Pre-acceleration shall be used if acceleration is delayed beyond line AA’. The accelerator control shall be fully engaged at an appropriate position on the approach such that the acceleration begins at AA’. The position shall be reported in the communication form (annex 1).” Chairman requested UK to rework Para 3.1.2.1.6 for the next meeting.
- P23 Para 3.1.2.3.3: ISO will attempt to deliver a definition for automatic, manual and CVT transmissions and to combine it to one Para.
- P24 Para 3.1.3 amended: “The maximum A-weighted sound pressure level indicated during each passage of the vehicle between the two lines AA’ and BB’ shall be noted and mathematically rounded to the first decimal place. … The results shall be considered valid when four measurements within a group of consecutive measurements on each side of the vehicle are within 2 dB, for the given side of the vehicle. … The results of each side shall be averaged separately. The intermediate result is the higher value of the two averages mathematically rounded to the first decimal place.”
- P25 Para 3.2.:ISO gave a summary of amendments currently under discussion for ISO 5130. There is an ISO- working group dealing with this issue. ISO WG42 is preparing a paper to show all influences on measurement uncertainty. This work will be finished by October 2003. Revised version of ISO 5130 needs to be carried over to ECE-R-51.
- P27 Para 3.2.6: Mathematical rounding of readings to the first decimal place and rounding of the urban sound level to the nearest integer value was introduced.

4.3 Mr. Saemann gave a presentation on rounding of values. It was the Group’s common position that readings, mathematically rounded to the first decimal place, shall be taken from the measuring instrument. Only those values obtained from three consecutive measurements which do not differ by more than 2 dB(A) respectively will be taken into consideration. The three values should be averaged
and mathematically rounded to the first decimal place. They shall constitute the test result. The reported urban sound level shall be rounded to the nearest integer value.

**Italy** requested to maintain 1 dB(A) tolerance for the lack of precision in the measurement instruments. **Italy** drew attention on precision requirements of sound level meters showing that even Type 1 level meters can have a maximum total error of up to 3.2 dB(A). It was agreed that the decision on maintaining 1 dB(A) deduction should be left for **GRB**.

5. See item 4.

6. With regard to **ASEP** there were some controversial arguments:
- According to **D** only vehicles of category M1 and N1 should be addressed with such a test. **NL** fully supported **D**’s position.
- **ISO** suggested to cover all categories of vehicles
- **OICA** repeatedly doubted the necessity of **ASEP** and asked for a verification
- **Mr. Steven** explained that M1 vehicles tend to be tested with lower engine speed compared to the typical usage in urban traffic, whilst this is not the case with M2, M3, N2 and N3. This will finally lead to the fact that there will be no uniform limit for all vehicles rather than an individual limit.
- Some motorcycle manufacturers seem to undermine the mind of the current regulation. Thus **D** is eager to prevent the same situation with Draft R51 especially for vehicles of category M1.
- **USA** proposed to address this to **GRB** as a separate item i.e. to ask for a mandate to explore a test method.
- **COMM, NL** and **D** would like to have Draft R51 in combination with **ASEP** only
- **Chairman** came in with a very important different idea: COP is intended to test against legal limits and not against type approval values. So it might be useful to elaborate a test method, which is designed to test against type approval values during COP measurements that have to be performed anyway.

7. **Chairman** summarised the group’s work and outlined future work as follows:
- Currently there are two open issues namely vehicle categorization and equations for acceleration.
- **GRB** can be informed that M1 and N1 should be covered
- **GRB** will be informed about the next steps; i.e. first to finalize test method and then to finalize Annex 10 (Additional sound emission provisions **ASEP**)
- Currently it is not possible to offer a time schedule for **ASEP**
- There will be input from other countries on **WP025**; i.e. paper has to be submitted to **GRB** by 14Jul2003.
- **Chairman** proposed to have four more meetings to cover the working items left.

8. **COMM, NL** and **D** asked for more detailed minutes with regard to comments given by the members of the group. However, **K. Feith** informed the group to keep in mind that **GRB**’s **WP29** expressed its desire that comments should not be put in the minutes.

9. It was agreed to have another 3-day-meeting in Germany. Preliminary date and meeting venue is 18-20Nov2003. Detailed information will be distributed duly.