ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations

Working Party on Noise

REPORT OF THE WORKING PARTY ON NOISE ON ITS FORTY-FOURTH SESSION

(4 to 6 September 2006)

ATTENDANCE

1. The Working Party on Noise (GRB) held its forty-fourth session from 4 to 6 September 2006 in Geneva, under the chairmanship of Mr. D. Meyer (Germany). Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure of WP.29 (TRANS/WP.29/690): Czech Republic; France; Germany; Hungary; India; Italy; Japan; Netherlands; Poland; Republic of Korea; Republic of South Africa; Russian Federation; Slovakia; Spain; Sweden; Switzerland; United Kingdom; United States of America. A representative of the European Commission (EC) also participated. Experts from the following non-governmental organizations also participated: International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA); European Association of Automobile Suppliers (CLEPA); International Motorcycle Manufacturers Association (IMMA); European Tyre and Rim Technical Organization (ETRTO); Federation of European Motorcyclists Associations (FEMA); European Federation for Transport and Environment (T&E).

2. The informal documents distributed during the session are listed in Annex 1 to this report.
1. **1958 AGREEMENT: AMENDMENTS TO EXISTING UNECE REGULATIONS**

1.1. **Regulation No. 41 – (Noise of motorcycles)**

1.1.1. **Development**

3. The expert from Italy, Mr. A. Erario, chairing the informal group on motorcycle noise emissions, informed GRB about the group's progress of work and the results of the meetings held in Geneva on 24 April (morning only) and 4 September (morning only) 2006. He reported that a new test protocol, based on ISO 362-2, had been drawn-up, and that a testing programme with the collaboration of Germany, India, Japan and IMMA, had recently been finalized. He added that the data collection subgroup would meet on 22 November 2006 in order to consolidate and analyze the test results. Mr. Erario also informed GRB about his intention to report at the next GRB session in February 2007 on the informal group's conclusions on the analysis of the data. He added that the agenda, working papers and reports of the sixth and seventh informal meetings could be consulted on the WP.29/GRB informal group's website.

4. GRB agreed with Mr. Erario's suggestion to hold the next informal meeting on 20 February 2007 (morning only) in Geneva, prior to the forty-fifth GRB session.

1.2. **Regulation No. 51 – (Noise of M and N categories of vehicles)**

Documentation: Informal document No. GRB-44-1 of Annex 1 to this report.

5. Recalling the discussion at the previous session (see ECE/TRANS/WP.29/GRB/41, para. 5), the expert from the Russian Federation introduced GRB-44-1 proposing to improve the durability requirements concerning vehicle noise performance. Following the discussion, GRB agreed to resume consideration of the proposal at its next session in February 2007. For that purpose, the secretariat was requested to distribute GRB-44-1 with an official symbol.

1.2.1. **Development**

6. Regarding the proposals by GRB (ECE/TRANS/WP.29/2006/4) and the EC (ECE/TRANS/WP.29/2006/31) on the insertion into Regulation No. 51 of the new noise test measurement method, GRB was informed that WP.29 and AC.1 had agreed to defer consideration of both proposals till their November 2006 sessions. Therefore, the Chairman suggested postponing consideration of the documents under agenda items 1.2.1.1. and 1.2.1.2. to the next GRB session.

7. The expert from the EC informed GRB that the EC had submitted directly to WP.29 and AC.1 for consideration at their November 2006 sessions further amendments (ECE/TRANS/WP.29/2006/31/Add.1/Rev.1) to its proposal, which had been transmitted by the EC as an alternative to the proposal adopted by GRB, on the adoption of the new noise measurement method (see para. 6 above). He confirmed that the proposal is aimed at initiating a two-year monitoring process, carried out by the EC, in order to obtain the test data according to both, the existing and the new noise measurement methods. The acquired data would be used, in the first step, to determinate the equivalent (comparable) noise emission limit values. In the
second step, those values would be used for the determination of more stringent limit values, taking into account the results of a cost-benefit analysis.

1.2.1.1. New sound limit values

**Documentation:** ECE/TRANS/WP.29/GRB/2006/2; ECE/TRANS/WP.29/GRB/2006/4; informal document No. GRB-43-4 of Annex 1 to this report.

8. Recalling the Chairman's suggestion (see para. 6 above), GRB agreed to postpone consideration of this subject to its next session.

1.2.1.2. Proposal for interim amendments to the Regulation

**Documentation:** Informal document No. GRB-42-13 of Annex 1 to this report.

9. Recalling the Chairman's suggestion (see para. 6 above), GRB agreed to postpone consideration of this subject to its next session.

1.2.1.3. Additional sound emission provisions (ASEP)

**Documentation:** Informal documents Nos. GRB-44-2, GRB-44-3 and GRB-44-4 of Annex 1 to this report.

10. The expert from the Netherlands, Mr. B. Kortbeek, chairing the informal group on additional sound emission provisions (ASEP), introduced GRB-44-2 regarding the informal group's progress of work, including the results of the third ASEP meeting held in Geneva from 21 to 23 February 2006. He stated that the informal group was able to conclude the majority of its tasks, among them the development of a test method by the technical task force group. Mr. B. Kortbeek informed GRB about the further planned steps of the informal group and the provisional timetable: (a) to prepare preliminary results of the group's work (until December 2006); (b) to seek GRB's advice concerning the pending issues that could not be solved within the informal group (during GRB February 2007 session); (c) to receive and analyze proposals for improvement of suggested ASEP provisions (until July 2007); (d) to submit to GRB, for consideration at its September 2007 session, the final proposal for insertion of ASEP provisions into Regulation No. 51.

11. At the GRB experts' request, the experts from France (GRB-44-3) and Germany (GRB-44-4) gave presentations on the noise test measurement methods that were used for the elaboration of the ASEP test method. GRB agreed to resume consideration of this subject at its next session.

1.2.2. Stationary test for four-wheelers

**Documentation:** ECE/TRANS/WP.29/GRB/2006/6.

12. The expert from ISO presented ECE/TRANS/WP.29/GRB/2006/6 proposing to align the current stationary vehicle noise test requirements of Regulation No. 51 with those provided
in draft standard ISO/DIS 5130. The expert from ISO volunteered to transmit an updated
document, for consideration at the next GRB session, which would take into consideration
comments raised by GRB experts and would be aligned with the final draft standard
ISO/FDIS 5130.

1.3. Regulation No. 59 - (Replacement silencing systems)

13. The expert from CLEPA informed GRB that he had not transmitted an updated proposal
for the revision of the current text of Regulation No. 59 (see ECE/TRANS/WP.29/GRB/41,
para. 11). He indicated that the development of the Regulation was closely linked with the
provisions of Regulation No. 51 and its further development. Therefore, he suggested to await
the decisions of WP.29 and AC.1 concerning the new noise test method (see para. 6 above) as
well as the proposal for the insertion of ASEP provisions into Regulation No. 51 (see
para. 10 above). The Chairman invited the expert from CLEPA to prepare a new proposal for
amending Regulation No. 59 once the pending issues on Regulation No. 51 are solved.

1.4. Regulation No. 117 - (Tyre rolling noise)

1.4.1. Extension of the scope of the Regulation to retreaded tyres

14. As no new information was provided during the session, GRB agreed to postpone
consideration of this subject to the next GRB session awaiting a concrete proposal by BIPAVER.

2. 1997 Agreement: Amendments to Rule No. 1

15. The Chairman reminded that, at the previous session, GRB expressed a wish to improve
the current requirements for noise emissions of Rule No. 1. As no further information was
provided on this subject, experts were invited to reflect on the need to elaborate a concrete
proposal for amendments to Rule No. 1. GRB agreed to resume consideration of this subject at
its next session.

3. 1998 Agreement: Elaboration of a New GTR on Noise

16. The Chairman informed GRB that AC.3 agreed to defer any decision on this subject
awaiting the further development of Regulation No. 51 (see ECE/TRANS/WP.29/1050,
para. 101).

17. Referring to the current situation of Regulation No. 51 (see para. 7 above), the expert
from the United States of America encouraged experts to focus their work on the determination
of equivalent (comparable) noise emission limit values under Regulation No. 51. With regard to
the elaboration of more stringent limit values for noise emissions, he expressed his preference to
integrate them into a future global technical regulation (gtr) rather than in Regulation No. 51. He
concluded that, in his opinion, the only possibility for the development of a gtr was to strengthen
the existing noise limit values, and he suggested that GRB should clarify this fundamental
question. GRB noted that, according to the 1998 Agreement, a gtr can be developed through
harmonization of existing technical regulations. The expert from the EC stated that a cost-
benefit analysis is essential before a decision is made for the strengthening of limit values, and
that, at the present time, the EC had volunteered to perform a study for calculating the equivalent noise values to the current noise limit values when using the new test method. Finally, GRB agreed to resume consideration of this subject at its next session, taking into account the outcome of the next AC.3 session in November 2006.

4. EXCHANGE OF INFORMATION ON NATIONAL AND INTERNATIONAL REQUIREMENTS ON NOISE LEVELS

18. GRB noted that no new information was provided on this item and agreed to keep this subject on its agenda for the next session.

5. EXCHANGE OF VIEWS ON VEHICLE NOISE REDUCTION CALCULATION METHODS

19. GRB noted that no new information was available on this item and agreed to keep this subject on the agenda for its next session.

6. INFLUENCE OF ROAD SURFACE ON TYRE ROLLING SOUND EMISSIONS

Documentation: Informal documents Nos. GRB-44-5 and GRB-44-6 of Annex 1 to this report.

20. The expert from the Netherlands gave a presentation (GRB-44-5) on the possibilities to reduce the noise emission level of vehicles taking into account all road traffic noise sources. He informed GRB that the application of low-noise road surfaces gave a considerable (about 5 dB(A)) traffic noise reduction, however, not enough to meet the targets for reducing the annoyance noise threshold (55 dB(A)) and the unacceptable noise threshold (65 dB(A)). He underlined that the road surface had the highest noise reduction potential among the major traffic noise contributors i.e. engine, tyre and road surface. The expert from the United Kingdom (UK) gave a presentation (GRB-44-6) on the UK current policy on reducing traffic noise, which included the use of low-noise surfacing materials for roads. He informed GRB that the target in the UK is to re-surface the 60 per cent of the strategic road network with a low-noise surface by 2011.

21. The expert from OICA inquired whether any information was available about the increasing of the road noise due to the deteriorated road surfaces. The expert from India suggested that deterioration of tyres should also be taken into account in such studies. The expert from Sweden questioned whether the conclusions of the available studies could have an impact on the vehicle design, e.g. maximally permissible tyre/road contact surface pressure.

22. The expert from Germany announced a presentation on this issue at the next GRB session. At the suggestion of the expert from ETRTO, GRB agreed to invite an expert from the World Road Association (PIARC) to give a presentation on road pavement classification and available low-noise pavement technologies. The expert from ETRTO volunteered to transmit to PIARC this invitation.
7. **ELECTION OF OFFICERS**

23. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690), GRB called the election of officers on 5 September 2006 morning. The representatives of the Contracting Parties present and voting unanimously re-elected Mr. D. Meyer (Germany) as Chairman for the GRB sessions scheduled for the year 2007.

8. **OTHER BUSINESS**

24. GRB noted that no new information was presented under this subject.

**AGENDA FOR THE FORTY-FIFTH SESSION**

25. The Chairman proposed the following provisional agenda for the forty-fifth session of GRB, scheduled to be held in Geneva from 20 (starting at 14.30h) to 22 (concluding at 17.30h) February 2007:

(a) Informal meeting of the GRB working group on an improved test measurement method for motorcycles

To be held on Tuesday morning, 20 February 2007, from 9.30h till 12.30h. The agenda of the meeting will be prepared by the secretariat of the informal working group and distributed to the members of the group prior to the meeting. **Note by the secretariat**: This meeting will be held without interpretation.

(b) Forty-fifth session of the GRB proper

1. 1958 Agreement: Amendments to existing UNECE Regulations

   1.1. Regulation No. 41 – (Noise of motorcycles)
      1.1.1. Development
      1.1.2. Stationary test for four-wheelers

   1.2. Regulation No. 51 – (Noise of M and N categories of vehicles)
      1.2.1. Development
      1.2.1.1. New sound limit values
      1.2.1.2. Proposal for interim amendments to the Regulation
      1.2.1.3. Additional sound emission provisions (ASEP)
      1.2.2. Stationary test for four-wheelers

   1.3. Regulation No. 59 – (Replacement silencing systems)

   1.4. Regulation No. 117 (Tyre rolling noise)
      1.4.1. Extension of the scope of the Regulation to retreaded tyres

2. 1997 Agreement: Amendments to Rule No. 1

3. 1998 Agreement: Elaboration of a new gtr on noise
4. Exchange of information on national and international requirements on noise levels
5. Exchange of views on vehicle noise reduction calculation methods
6. Influence of road surface on tyre rolling sound emissions
7. Other business

(c) Informal meeting of the GRB working group on additional sound emission provisions (ASEP)

To be held on Friday, 23 February 2007, from 9.30h till 17.30h. The agenda of the meeting will be prepared by the secretariat of the informal working group and distributed to the members of the group prior to the meeting. Note by the secretariat: This meeting will be held without interpretation.

1/ As part of the secretariat's efforts to reduce expenditure, all the official documents as well as the informal documents distributed prior to the session, by mail or placed on the UNECE WP.29 website, will not be available in the conference room for distribution to session participants. Delegates are kindly requested to bring their copies of the documents to the meeting. (The WP.29 website address is: http://www.unece.org/trans/main/welcwp29.htm select GRB and find "Working Documents" as well as "Informal Documents"). For the translation of the above-mentioned official documents, delegates can now access the new public Official Document System (ODS) at the website address: http://documents.un.org
Annex 1

LIST OF INFORMAL DOCUMENTS GRB-44-…. DISTRIBUTED WITHOUT AN OFFICIAL SYMBOL DURING THE FORTY-FOURTH SESSION OF GRB

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<thead>
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<th>No.</th>
<th>Transmitted by</th>
<th>Agenda item</th>
<th>Language</th>
<th>Title</th>
<th>Follow-up</th>
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<tr>
<td>1.</td>
<td>Russian Federation</td>
<td>1.2.</td>
<td>R/E</td>
<td>Proposal for draft amendments to Regulation No. 51</td>
<td>(b)</td>
</tr>
<tr>
<td>2.</td>
<td>ASEP IG Chairman</td>
<td>1.2.1.3.</td>
<td>E</td>
<td>Report of the GRB informal working group on ASEP</td>
<td>(c)</td>
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<td>3.</td>
<td>France</td>
<td>1.2.1.3.</td>
<td>E</td>
<td>Vehicle noise behaviour: French concept</td>
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<td>4.</td>
<td>Germany</td>
<td>1.2.1.3.</td>
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<td>The French/German ASEP proposal</td>
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<td>5.</td>
<td>Netherlands</td>
<td>6.</td>
<td>E</td>
<td>Application of low noise road surfaces in the Netherlands</td>
<td>(c)</td>
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<td>6.</td>
<td>United Kingdom</td>
<td>6.</td>
<td>E</td>
<td>Traffic noise: UK perspective on surfaces</td>
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Reconsideration of informal documents from the previous GRB sessions (referring to agenda item and follow-up decision of the current session)

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<td>43-4</td>
<td>Netherlands</td>
<td>1.2.1.1.</td>
<td>E</td>
<td>Proposal for limit values connected to D/ISO proposal for Regulation No. 51</td>
<td>(a)</td>
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<td>42-13</td>
<td>Netherlands</td>
<td>1.2.1.2.</td>
<td>E</td>
<td>Proposal for interim amendment of Regulation No. 51.02</td>
<td>(a)</td>
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Notes:
(a) Continue consideration at the next GRB session as an informal document.
(b) Continue consideration at the next GRB session as an official document.
(c) Consideration completed or to be superseded.
Annex 2

INFORMAL WORKING GROUPS OF GRB

<table>
<thead>
<tr>
<th>Informal group</th>
<th>Chairman</th>
<th>Secretary</th>
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<tr>
<td>Motor vehicle noise emissions (Regulation No. 51)</td>
<td>Mr. Ch. Theis (Germany) Tel: +49 228 300 5343</td>
<td>Mr. H.P. Bietenbeck (OICA) Tel.: +49 221 90 32 409</td>
</tr>
<tr>
<td></td>
<td>Fax: +49 228 300 807 5343</td>
<td>Fax : +49 221 90 32 760</td>
</tr>
<tr>
<td></td>
<td>E-mail: <a href="mailto:christian.theis@bmvbs.bund.de">christian.theis@bmvbs.bund.de</a></td>
<td>E-mail: <a href="mailto:hbietenb@ford.com">hbietenb@ford.com</a></td>
</tr>
<tr>
<td>Motorcycle noise emissions (Regulation No. 41)</td>
<td>Mr. A. Erario (Italy) Tel: +39 06 4158 6228</td>
<td>Mr. P. Chesnel (IMMA) Tel: +41 22 920 2120</td>
</tr>
<tr>
<td></td>
<td>Fax: +39 06 4158 3253</td>
<td>Fax : +41 22 920 2121</td>
</tr>
<tr>
<td></td>
<td>E-mail: <a href="mailto:antonio.erario@infrastruttureretrasporti.it">antonio.erario@infrastruttureretrasporti.it</a></td>
<td>E-mail: <a href="mailto:pchesnel@immamotorcycles.org">pchesnel@immamotorcycles.org</a></td>
</tr>
<tr>
<td>Additional sound emission provisions (ASEP)</td>
<td>Mr. B. Kortbeek (Netherlands) Tel: +31 70 339 4526</td>
<td>Mr. H.P. Bietenbeck (OICA) Tel.: +49 221 90 32 409</td>
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<tr>
<td></td>
<td>Fax: +31 70 339 1280</td>
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