Transmitted by the representative of Germany

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Discussion Paper about the introduction of performance requirements (limit values) into gtr No. 2 (World-wide harmonized motorcycle emission test cycle (WMTC))

1. Introduction

According to the 1998 Agreement (ARTICLE 1, section 1.1.5.), the purpose is "to achieve high levels of safety, environmental protection, energy efficiency, and anti-theft performance within the global community, and to ensure that actions under this Agreement do not promote, or result in, a lowering of these levels within the jurisdiction of Contracting Parties, including the sub national level". In ARTICLE 4, section 4.2. it is stated, that "A global technical regulation may specify alternative non-global levels of stringency or performance, and appropriate test procedures, where needed to facilitate the regulatory activities of certain countries, in particular developing countries".

The gtr No.2 was established in the Global Registry in June 2005, without performance requirements. In section 5 of gtr No. 2 (Performance requirements) it is stated: "When implementing the test procedure contained in this gtr as part of their national legislation, Contracting Parties are invited to use limit values which represent at least the same level of severity as their existing regulations; pending the development of harmonized limit values, by the Administrative Committee (AC.3) of the 1998 Agreement, for inclusion in the gtr at a later date." The mandate for this Stage 2 of WMTC development was given by AC.3 (ECE/TRANS/WP.29/AC.3/19).

An introduction of limit values (CO, HC, NOx) in gtr No. 2 would imply, that these limit values are based on the WMTC test cycle, the WMTC classification and the reference fuel defined in gtr No. 2.

2. Data base and information prepared by the WMTC informal group

The informal group was mandated by AC.3 to collect data and prepare information as a basis for the discussion. This was presented to GRPE at the June 2008 session as informal document No. GRPE-56-11, amended as working document TRANS/WP.29/GRPE/2008/xx, including:

- An overview of the existing national / regional legislation for motorcycle emissions,
- the status of the transposition of gtr No. 2 into national / regional legislation,
- an evaluation of 134 test data (emission tests),
- Comments and Conclusions.

At the moment, gtr No. 2 is transposed into the legislation of one Contracting party (the EU). Manufacturers have the option of type approving vehicles using the WMTC test cycles and a new set of limit values that are equivalent to the existing Euro 3 level.

The 134 test data sets allow a comparison of the results based on WMTC test cycles and other existing national test cycles. The evaluation resulted in a set of so called "standstill limit values", which are the values based on the WMTC cycles in order to obtain the same level of severity as the existing national limit values when measured with the existing test cycle.

3. Introduction of limit values into gtr No. 2 at the existing level of stringency in national / regional legislations

The 1998 Agreement implies that a gtr should, at a minimum, be based on the equivalent to the most severe performance requirements in the existing legislation of Contracting Parties. This leads to several options:

(a) If one national legislation clearly generates the most stringent set of requirements for all pollutants , these limit values can be introduced solely in gtr. No 2.

(b) In the case of "intersecting" limit values (e.g. CO is most stringent in country A, but HC in country B), the limit values introduced in gtr No. 2 can be a combination of the most stringent value for each component.

(c) Regarding "intersecting" limit values, another alternative could be to choose the set of limit values (e.g. from country A) that ensures the introduction of most advanced engine and after-treatment technology.

(d) The 1998 agreement allows options for different environment protection approaches or different levels of stringency in a gtr. So a table with different sets of limit values is possible, provided that the most stringent level (see (a), (b) or (c) above) is included. There can be several reasons for the introduction of a table into gtr No. 2:

- Different environmental needs or cost-benefit situation
- Diverse traffic situation / driving behaviour or special vehicles (performance, classification)
- Separated or combined limits for HC and NOx
- Different reference fuels because of the market fuel situation

4. Introduction of advanced, next step limit values in gtr No. 2

Section 3 described the introduction of limit values based on the currently most severe requirements or different environment protection approaches in Contracting Parties legislation. This section considers the procedural approach and justification (cost benefit analyse) to be used in developing lower limits than those derived from the in Section 3 procedure. The difficulty will be to find an useful approach and to bring the national political decision-making processes into line with the timing of the AC.3 decision. There are several possibilities for introducing advanced limit values into gtr No. 2:

(e) A Contracting Party introduces new limit values into it's national legislation. After finalisation of the national decision process this Contracting Party proposes the new set of limit values for introduction in gtr No. 2 (either as the only limits or as an additional line in the table).

(f) All Contracting Parties introduce new limit values into their national legislation and then GRPE considers the advanced limits on the basis of the national limit values already in force (with procedures (a) - (d) above).

(g) The proposal for advanced limit values is only discussed in GRPE and decided in AC.3. After introduction into gtr No.2 and adoption, Contracting Parties are required to start the transposition process.

(h) A proposal for advanced limit values is sent to AC.3, developed either by a Contracting Party or GRPE. This proposal will be discussed under agenda item 5.4. and 17. "Guidance, by consensus decision, on those elements of draft gtrs that have not been resolved by the working parties subsidiary to the World Forum". The next step would then be for the proposed limits to be considered by Contracting Parties, involving all the national bodies which are responsible for the decision making process of setting new limit values. After a certain period of time, the outcome of these consultations would then be considered by AC.3. If an agreement is possible, the proposal can be transmitted for voting in AC.3. In the case of disagreement, the process can be stopped, or an additional consideration by Contracting Parties can be started, based on a compromise proposal.

5. Possible approaches

In principle four approaches are obvious:

(1) No limit values in gtr no. 2.
(2) Limit values at the existing level(s) of stringency (see section 3.).
(3) Introducing next step limit values (see section 4.)
(4) Both together (approaches (3) and (4))

(1) Without performance requirements, a gtr is limited to the test and measurement procedure, similar to an ISO standard. This would mean only partial harmonisation and doesn't satisfy the philosophy of the 1998 Agreement.

(2) Options (a) - (d) result in a situation where the gtr only harmonises the currently existing legislation. To enable a further development of more stringent limit values, a clause in the gtr needs to clarify how to proceed. It's important to avoid the situation where fixed limit values in the gtr will hinder future development of emission legislation. The introduction of lower limit values would then become the subject of the next amendment to the gtr, with all the usual steps. This would take time and that is why options (e) – (h) are an important alternative even at this stage in the discussions.

(3) With an approach based on (e), (f), (g) or (h), the following principles should be taken into account:

- A consideration of limit values in WP.29 ((g), (h)) should not decelerate the development of emission legislation in the Contracting Parties.
- Transparency is an important condition for the Geneva work. This is nearly impossible with options (e) or (f).

- In the case of options (e) and (f), the present national impact assessment or cost/benefit analysis might not fit the situation in other Contracting Parties and maybe useless for the gtr purposes.
- Option (g) will not ensure the involvement of all national decision making bodies (like Parliaments) at an early stage. This can result in a blocking situation during the adoption of the amendment of the gtr. This could be helped if the contacting Parties already carried out their consultations based on the final document agreed at GRPE.
- Options (e) - (h) require a harmonisation of the reference fuel. If this is not agreeable for the time being, the gtr needs an exemption or optional clause.

(4) A combination of the approaches (2) and (3) is possible in principle. The initial introduction can be carried out simultaneously or in two steps.

However, in cases (2), (3) and (4), if a Contracting Party is transposing gtr No. 2 by setting less stringent limit values or choosing a less stringent level from the gtr - table (see d above), the national legislation should ensure that a motorcycle can be type approved/certified if this motorcycle fulfils a more stringent level in the gtr No. 2. This will give some planning reliability for manufacturers.

[6. Proposal]

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