Minutes of the 2nd meeting of GRPE Informal Group MACTP

Date: January 11 2011, 14:30 -16:00 Palais des Nations, Geneva, Room VII

1 - Welcome

The Chairman welcomed the participants. He informed that for this meeting, interpreters are available in all three official languages.

2 - Adoption of the Agenda

The proposed draft agenda MACTP-02-01 was accepted without any changes.

3 - Presentation of final Terms of Reference as accepted by GRPE / WP29

The chairman informed the group that the final Terms of Reference are annexed to the report of the 60th session of GRPE, see page 25. They were accepted by GRPE as prepared during and after the e 1st meeting of IG MACTP.

4 - Adoption of the minutes of first meeting

The minutes of the first meeting are accepted without any changes. However, the Korean delegation repeated their comments made during the last meeting which are not contained in the notes:

- Korea evaluates if incentives shall be granted for the use of energy efficient MAC systems
- for the time being there are no plans from Korea to introduce testing based on national requirements
- Korea hopes that harmonisation for MAC test procedure can be reached on international level

The Chairman welcomed the comments and encouraged Korea to keep the group informed about any developments on national level.

5 - Report on latest development of the draft test procedure (EU Commission / TNO

The European Commission informed the group that in October 2010 a meeting on European level was held in Brussels informing about the latest changes to the proposed test procedure. This was a meeting open to every interested party. The detailed report is available from the UNECE website.

6 - Report on MACTP activities in the EU (EU Commission)

The European Commission gave a presentation MACTP-02-03 outlining the latest status of the proposed test procedure. So far it is not yet determined if the anticipated results from MAC testing shall be used for informing the customer i.e. the labelling of vehicles or if legal limits for the additional emission of CO2 shall be set.

The test speeds as proposed (idle, 50km/h, 100km/h) are not yet finally determined and are still open for discussion.

The correction to the test results are meant to compensate for the deviation from nominal parameters e.g. vehicle speed, ambient temperature, relative humidity...

MACTP-02-04c.doc Page 1/2

So far the test's design is restricted to cover 'Classic' Powertrains only, where the AC system is driven via a mechanical coupling to the engine, so that additional CO2 emissions caused by the use of MAC can directly be detected. However, in its current version the procedure is not qualified to evaluate MACs that are powered by electrical energy as typically used in EVs. Here an extension of the existing procedure or another test procedure is necessary, e.g. to evaluate the influence of MAC on the battery's SoC (State of Charge) an to translate changes in the battery SOC into an effective fuel consumption. Possibly some benefit from the WLTP work can be drawn in this respect.

The representative from the EC encouraged all IG members to participate in the pilot phase that shall be kicked-off soon. This phase is contemplated to validate the procedure as developed so far. Also it gives all involved parties (Suppliers/OEMs/Technical Services) the opportunity to gain experience for the future type approval testing. Having international contributors within this pilot phase also improves the probability to develop a GTR. So far 5 European stakeholders from Automotive Industry and their suppliers have expressed intend to participate in the pilot phase. The Consortium developing the test procedure will supervise the pilot phase; results are expected to be published in the 2nd half of 2011. On inquiry from the US it was clarified that this procedure shall not evaluate the leakages from AC systems nor is it intended to be used to differentiate between different types of refrigerants. This falls into the scope of EC Regulation 2006/40/EC.

7 - Progress of Studies on Vehicle F/E Measurement Method with the Effect of AC Taken into Account (MLIT)

The representative from there MLIT presented MACTP-02-02. In the following discussion it was clarified that for the time being the applied test mode JC08 is used in order to identify the important factor in the evaluation of MAC efficiency. It is not intended to use this procedure as national MAC test procedure. However it is possible that based on the findings a new test procedure will be developed. As soon as further findings are available, J will present them to the Informal Group.

8 - Other presentations

No other presentations were given

9 - Information from the regions

No new information from the regions were given

10 - Other item

No other items

11 - Next Meeting

The next meeting of the IG MACTP shall be held as a half day meeting in the course of the next GRPE session. In addition there may be a meeting on EU level.

MACTP-02-04e.doc Page 2/2