

Minutes of the 11th WLTP IWG Meeting

09. – 10.06.2015 Geneva

1. **Welcome & organization:** Chair welcomed the participants at the premises of the EU delegation and UN Palais de Nations.

Adoption of agenda & minutes: Agenda of 11th meeting (WLTP-11-02-rev1e) was explained and adopted. Minutes of 10th IWG meeting (WLTP-10-42e) were adopted without changes.

Open Issues Table: Update since 10th IWG meeting (WLTP-11-03e) was presented. Ichikawa-san showed the lacking progress in finishing open issues and asked for stronger efforts of all stakeholders.

2. **RLD & dyno setting (Annex 4):** Progress report on RLD issues was given by R. Cuelenaere (WLTP-11-11e).

OIL # 18: Wind tunnel method as alternative RLD method: Updated GTR proposal (WLTP-11-12e), incl. tolerances, was reviewed by the taskforce and was **adopted by IWG WLTP**. Drafted text for the wind tunnel method will be finished in the next Drafting Subgroup meeting. Flat Belt /dyno part will be developed further; proposal expected for adoption at IWG meeting #12.

OIL # 48: Correction Algorithms (Dyno load setting (2.7)) Proposal on time gaps between warm up and coast down by Audi (WLTP-10-19-rev1e) was accepted by the taskforce and **adopted by the IWG**. Drafted text is provided to the DC.

On request of the RLD TF coordinator the Chair clarified that no further RLD related issues from the COM proposal for correction algorithms (WLTP-08-38e) will be put on the RLD TF agenda for Phase 1B.

OIL# 1b_5: Manufacturer's responsibility for accuracy of road load specifications: Proposal was presented by Japan (WLTP-11-13e). Chair welcomed the more generic approach in phase 1b of WLTP, since in-use-provisions are

foreseen in phase 2. EU Com welcomed the proposal for phase 1b, but stressed the importance of a specification of tolerances within WLTP phase 2. Proposal was discussed and **adopted by the IWG** with the following changes: “specification” → “coefficients”, “should” --> “shall”.

OICA remarked the lacking alignment of specified tolerances in Annex 4 and will develop an amendment for review in the RLD TF and SG Drafting (no IWG document required).

RLD TF will provide the Japanese overview matrix of applied Annex 4 tolerances for information purposes in advance of IWG meeting #12.

OIL # 11, 13: Onboard-anemometry / wind conditions: Draft GTR proposal (WLTP-11-14e) was presented by Ford. Discussion arose about referring to SAE or ISO standards. Chair recommended a standalone text in the GTR with explanation in the technical report (note: the issue has been reported to GRPE on June 11th and guidance was requested. The UN Secretariat informed about the ongoing general discussions on WP.29 level and offered to prepare the discussions with the SAE representative). T&E asked for the need of other mounting positions. Ford will provide background to the taskforce.

Proposed deletion of regional option of more open wind conditions was **adopted by the IWG**. DC will change the GTR accordingly. **OIL #11 is closed**.

OIL # 4, 7, 14- 16, 20: Torque meter method (incl. road load curve correction / chassis dyno load setting). Validation results presented by Ford (WLTP-11-15e) showed good equivalence, which was confirmed as sufficient by WLTP IWG.. Rob Cuelenaere explained the draft gtr proposal (WLTP-11-16e) and outlined the approaches to solve the remaining OIL items. WLTP IWG agreed to the approaches. TF will further work on the text and involve the SG Drafting in advance before the meeting#12.

EU Com raised concerns about the chain of tolerances in getting road load coefficients backwards out of the road measurement and followed dyno setting. TF will handle that issue within a dedicated torque meter meeting. Basic approach is accepted by the IWG.

OIL# 17: Default road load parameters: Combined progress report by RDW / Daimler (WLTP-11-17e) incl. initial draft GTR proposals for the so called Road Load Matrix Family. TF Leader appreciated the constructive work in the task force. Chair welcomed the progress on this open issue.

EU Com appreciated the summarizing overview of methods (table page 31) and recommended inclusion in GTR (technical report). Approach for selection of a representative test vehicle was supported by IWG.

Compromise proposal by TF on the necessary amount of safety margin was explained. T&E requested greater margin. EU Com will review the safety margin in EU-WLTP. Japan had no reservation as long as the method is restricted to heavy cars as proposed. Political decision is expected. Taskforce is asked to prepare a decision paper for gaining feedback of the CP's until end of June.

OICA will provide a proposal for an adapted range of CO₂ for a road load matrix family (Bill Coleman).

OIL # 1b_3: Tyre selection status report was given by K. Steininger. Data from ETRTO will be further investigated. EU will consider circulating a proposal well in advance before meeting#12.

OIL# 10: Wind tunnel for combined approach: editorial updated draft document (WLTP-11-18e) was already adopted in meeting#10. **OIL#10 is closed.**

3. Main part & Cycle issues (Annex 1 & 2)

Downscaling / gearshifting (OIL #4-9): Progress report was given by H. Steven (WLTP-11-05e), incl. status of n_{\min_drive} . Since there could not be achieved a common position in the TF, issue of n_{\min_drive} will be further worked on.

OIL # 06: Use of the gear box: Crawler gear (WLTP-11-06e) prescription was developed and accepted by TF. Revised gtr text proposal for annex 2 (WLTP-11-07e) was explained. OICA requested to include the factor 0.15 for M1. Amendment was accepted by IWG. Japan supported the proposal. Proposal was **adopted by WLTP IWG** with the above mentioned amendment by OICA. Text will be provided to the DC by Heinz Steven.

NEW OIL #1b_6: Additional discussion points from the TF (WLTP-11-08e)

Annex 1:

a) Section 2: vehicle classification (test mass inst. of kerb mass) has to be defined further.

b) Section 3: add checksums of the vehicle speed

c) Section 7: report detailed downscaling information

Annex 2: Calculation of average gear over the whole cycle

IWG asked the TF to develop proposals for these issues. EU asks for development for a communication concept for the required data.

4. WLTP Subgroup EV (Annex 8)

Progress report (WLTP-11-19-rev1e) incl. the following items was given by Niikuni-san:

OIL # 02, 55, 56: Status of Interpolation family approach and phase specific calculation for different types of EV will be further worked on.

OIL # 51: Mode selectable switch will be concluded in next EV SG meeting

OIL # 52: End of PEV range criteria: Further discussions in SG needed on capped speed provisions; EU input is requested.

OIL # 58: PEV shorten test procedure. Test method is agreed upon, boundary conditions are still open.

Chair encouraged the EV SG to continue finalizing their open issues and to prepare legislative text well in advance to IWG meeting #12

5. Test procedure and conditions (Annex 6)

OIL # 27: Number of tests: Progress report was presented by T. Fujiwara (WLTP-11-20e), incl. initial proposal for hybrid vehicles by Japan. Feedback on options for D_p values were given by EU and Korea. Japan proposed a compromise position with regional options for CO₂. JRC recommended to set D_{p2} to 50% of D_{p1} . India as well as Korea supported to find a harmonized solution. OICA stressed the induced additional test burden and will provide CO₂ spread from a German round robin exercise. EU could support the proposed approach but will review the proposal in EU WLTP. Chair encouraged EU Com to consider a compromise which

ensures a harmonized GTR solution; Japan could go with D_{p1} and D_{p2} as zero. EU will give feedback until end of June.

TF proposed D_p values for test results of EV concepts and gave examples of procedure on handling the test results. SG EV is asked to join the TF for clarification on handling of EV results. India required to consider re-declaration of rated power and max vehicle speed and asks for clarification in the GTR. IWG asked TF to work further on that open issues.

EU asks TF to review the CO2 family criteria in regard to robustness for criteria pollutants.

OIL # 29, 30, 41: Speed trace violations / Drive Trace Index: Progress report / proposal was given by N. Ichikawa (WLTP-11-21e / -22e) incl. evaluation of other criteria of driving indexes. Proposals for thresholds were discussed and will be worked on. US EPA was asked to join the task force. TF is requested to provide draft gtr text and involve SG Drafting as soon as possible. India asked for considering all class of vehicles and the required sampling frequency.

OIL# 31: Provisions for Coasting (WLTP Phase 2 item): TF led by T. Vogel asked CP's for support in defining a coasting definitions for further work in WLTP phase 2.

6. Calculations (Annex 7)

Additional pollutants (OIL # 45, 46) C. Astorga reported about upcoming validation exercise and the achieved progress with drafting. Drafting will be finished until end of June.

7. Determination of system equivalency (Annex 9)

Progress report was given by K. Kolesa (WLTP-11-23e). IWG supported the proposed approach. Draft proposal for inclusion in gtr 15 was **adopted by WLTP IWG**.

Implementation prescription will be introduced in WLTP phase 2. DC will clarify the use of reserved paragraph.

8. GTR Drafting

- Overview was given by Drafting Coordinator, S. Dubuc (WLTP-11-09e), incl. overview on finalized OIT items and open drafting issue list (WLTP-11-10e). Current GTR draft (WLTP-11-04e & WLTP-11-04_clean) was uploaded to UN/ECE website. Chair appreciated the continuous and thorough work of the drafting subgroup.
- Chair outlined the expectation that the review and update of Part A of GTR No 15 and the Technical Report is in the responsibility of the Technical GTR Sponsors (JPN, EC). Note: this was confirmed by GRPE on June 11th.

9. Definitions:

VPSD recommendations (GRPE/2015/13 & GRPE-71-xyz) and other definitions were reviewed by Bill Coleman:

- Proposed change of *mass of optional equipment* was supported by NL. Japan will scrutinize the proposal.
- ACEA proposal for gtr amendment (WLTP-11-27e) based on data of representative fuel tanks levels was discussed by IWG. CP's and Stakeholder were asked to scrutinize the proposal. NL objected to reopen the mass definition and the mixing of mass in running order and reference mass definitions. EC could support the general idea of reducing the unrepresentative 90 % tank filling provision, but objected to solve this by deleting 25 kg from the test mass. IWG decided not to put this issue on the agenda of IWG #12, unless a further developed proposal is supported by CPs in advance.
- IWG will expect position of GRPE on VPSD recommendations before amending gtr 15 definitions. SG Drafting will provide proposal for GTR 15 amendments for IWG #12.

10. General issues

Round Robin exercises:

C. Vallaude presented first results of European exercise (WLTP-11-25e) with observations and questions to the IWG. UTAC sees some need of clarification but no fundamental changes to the gtr are necessary.

Japan (Haniu-san) gave oral report on Asian exercise and will show intermediate results in meeting #12.

11. Working Issues for WLTP Phase 2

- Japan (Kobayashi-san) showed updated feedback by CPs and other stakeholders to Questionnaire (WLTP-11-26e; note: revision1 with feedback of China included will be provided afterwards). Decisions on open items needs to be taken by the sponsors (EU Com and Japan)
- Draft proposal for WP.29/AC.3 mandate for WLTP Phase 2 will be prepared by Japan

12. Meeting schedule

- 12th WLTP IWG Meeting (finalization of WLTP Phase 1B), Tokyo, **Japan** (28.9. – 2.10.15). Invitation will be provided until end of June.

For the minutes
Konrad Kolesa
Co-Technical Secretary IWG WLTP
10.06.2015