

M i n u t e s

of the 9th WLTP IWG Meeting, Geneva, 14.01.2015

1. Welcome & organization:

Chair welcomed the participants of the 9th IWG meeting.

2. Adoption of agenda & minutes:

The Agenda (WLTP-09-02-rev2e) and the Minutes of the 8th IWG meeting (WLTP-08-48e) were adopted without amendments.

3. Open Issues Table:

Update since 9th IWG meeting (WLTP-09-03e). Overview of Taskforces will be uploaded after updating it.

4. WLTP Subgroup EV (Annex 8)

Progress report (WLTP-09-05-rev1e) was presented by **T. Niikuni** for the Open Issues with a roadmap for development and adoption:

50, # 55: RCB correction and Phase specific calculation

51: Mode selectable switch

52: End of EV range criteria

58: PEV shorten test procedure

02, # 56: CO2 family and combined approach

53: FCV test procedure, starting note

Progress report was accepted by WLTP IWG. **OICA** required clearer terminology within OIL #50, #55 for application of CS test to NOVC and OVC Hybrid vehicles.

57 Utility factor(UF): IWG Chair introduced background, subgroup presented the suggestion for the development of UFs (WLTP-09-06-rev1e).

India confirmed interest in harmonization of UF developing method and welcomed the introduction of the reference to SAE 2841. An overview of existing regional UFs (Japan, EU, US) will be given in the GTR.

WLTP IWG adopted the proposal, issue is closed. Draft text needs to be developed and will be provided by the subgroup EV (**T. Niikuni**) to the Drafting Coordinator.

5. Main part & Cycle issues (Annex 1 & 2) :

Downscaling / gearshifting (OIL #4-9):

Progress report was presented by **H. Steven** (WLTP-09-07e).

- OI #5, #8 and #9 were closed.
- OI #6 (use of the gearbox) has to be discussed in some aspects (definition of n_{\min_drive} , exeption of crawler gears). Adoption was transferred to IWG meeting #10.
- OI #4 / #7 shall be handled with the linked OI #16 within the **TF Annex 4**.

Chair welcomed the effective work of the taskforce. **JRC** asks for an interim version of the calculation tool for the ongoing correlation work. TF (**H. Steven**) will provide amended tool version to interested CPs until end of January (WLTP-09-28e). **OICA** asked for inclusion of a C-Code for avoiding misinterpretation based on JRC tool. **H. Steven** will clarify this with JRC.

6. RLD & dyno setting (Annex 4)

Progress report (WLTP-09-08e) on RLD issues (#10 – 21) was presented by **R. Cuelenaere**:

- OIL #10, #18: Final proposal of wind tunnel method will be presented at IWG meeting #10. **Japan** will give feedback of validation outcome until TF meeting in 04/2015. **India** asked for a simulation tool for $cd \cdot A$ values. **OICA** will provide a tool for the f2f meeting in 2/2015 (**C. Lueginger**). **EU Com** will discuss the need of a technical report describing this new method (**K. Steininger**)
- OIL #11, #13 will be handled in the next TF Meeting
- OIL #14, #15, #16, #20 (torque meter method) will be discussed in the next TF meeting, presentation in meeting #10, adoption is expected in meeting #11

- OIL #17 (combined default road load approach). Draft text is aimed to be prepared for IWG meeting #10. TF particularly needs to discuss the extension of scope to N1 vehicles; principle concerns by **Japan** and **EU COM** were recognized. **India** asked for considering the different characteristics of M1 and N1 vehicles.
- Proposals for **adoption**: Principals of alternative warming up procedure (WLTP-09-09-rev1e) were adopted. Draft text proposal was **adopted by WLTP IWG** and will be transferred to the DC (Fujiwara-san)
- Discussion on tyre rolling resistance (tyre selection criteria of combined approach) will not be continued within the TF until 4/2015. WLTP IWG will decide on further proceeding at IWG meeting #10 based on data provided by tyre manufacturers.
- Wheel alignment (WLTP-09-10e) Draft proposal was **adopted by WLTP IWG**. Draft text will be provided to DC by R. Cuelenaere. Term "center value" needs to be clarified by **Drafting Subgroup**.

7. Test equipment and calibrations (Annex 5)

Proposals for adoption were presented by **Th. Adam**:

24: Accuracy and linearity of the force transducer (WLTP-09-11e). Proposal of keeping the gtr unchanged was **adopted by IWG WLTP**. OI closed.

25: Proposal to keep gtr unchanged on provisions dyno parasitic loss calibration (WLTP-09-12e) was **adopted by IWG WLTP**. OI closed.

26: Review of comments from **I. Riemersma** (on behalf of EU COM) on measurement equipment (WLTP-09-13e) was performed by experts.

Remaining open points shall be addressed by the **Drafting subgroup**.

8. Test procedure and conditions (Annex 6)

- OIL #27 Number of tests: Status report on was presented by TF leader, **T. Fujiwara**, (WLTP-09-21e). Alternative proposal was presented by **EU Com**, K. Steininger, (WLTP-09-22e). **Germany** and **India** welcomed in principle the EU approach. Need for further discussions in the TF was pointed out by Chair. Next

TF meeting in 2/2015. **CPs** and **experts** were encouraged to contact WLTP leading team and TF leader, if they are interested in attending the TF.

- OIL #28 Settings of engine: Proposal for **adoption** (WLTP-09-14e) was provided by **N. Ichikawa**. CP questioned necessity of this provision; being perhaps redundant (to be clarified in f2f meeting of **Drafting Subgroup**). Discussion will be continued and proposal to brought back in IWG meeting #10.
- OIL #31 Provisions for Coasting: Progress report was given by TF leader **T. Vogel** (WLTP-09-15e). TF asked for decision on delaying this issue to WLTP phase 2 due to lack of data and resources to develop it further.
CLEPA showed strong interest in continuing the work. **EU** saw this issue with scope for further improvement and would support continuation in WLTP Phase 2. **India** and **OICA** also accepted a shift to Phase 2. **Japan** preferred canceling and restart if applicable, but had no objection to continue work with the aim of finalization in Phase 2. But **Japan** requested to specify the terms of reference / purpose of work (aimed accuracy).
WLTP IWG decision: TF will continue work with the aim of finalization in WLTP Phase 2 and is asked for further progress reports to the WLTP IWG.
- Bag analysis (OIL #33): Issue will further discussed with experts and reported in IWG meeting #10. (**M. Bergmann**)

9. Calculations (Annex 7):

Progress report on Additional Pollutants (OIL # 44–46) by **C. Astorga** (WLTP-09-17e and WLTP-09-17 1e).

OIL #44 (NH₃ measurement and calculation): Proposed draft text for inclusion in the gtr was **adopted by WLTP IWG** and will be provided to the DC by **C. Astorga**. OIL is closed.

OIL #45, #46 will be validated further. TF has concerns to have final results at IWG meeting #10 due to lack of data. Validation delayed due to availability of measurement equipment.

10. Correction algorithms (OIL #48)

- Position paper by EU-COM ([WLTP-08-38e](#)): **EU Com** outlined again the proposal and will provide draft text for target speed deviation, wheel alignment and chassis dyno load setting.
- Feedback from contracting parties and related organizations was required for IWG meeting #9. **Japan** gave feedback ([WLTP-09-23e](#)) on correction algorithms and speed trace deviations ([WLTP-09-24e](#)). **ACEA** provided feedback (WLTP-09-25e). **India** supported principally the drive trace correction, but questioned drive trace index approach for manual transmissions and recommends analysis of WLTP round robin data for determination of significance. **Japan** requested data for evaluation again. JRC data base of WLTP was recommended by **India**.
- **WLTP IWG Decisions** (A and B priority items) on package of procedures to be harmonized in WLTP phase 1B:
 - Drive Trace Index will be focused on in Phase 1B. Drive trace energy correction will be transferred to WLTP phase 2.
 - Correction of Rotational Inertia via weighing the tyres will be excluded from Phase 1B.
- **Japan** will give feedback on issue on dyno load setting (2.7) until end of 2/2015. TF on annex 4 (**R. Cuelenaere**) will handle this issue. Inclusion in Phase 1b or at worst case Phase 2 is foreseen.
- Other issues from EU Com proposal might still be included in the working plan of WLTP phase 2.

11. General issues

- **Round Robin exercises:**

Brief oral reports were given by **B. Coleman** & **N. Ichikawa**. Testing in Asia has started in Japan and will go to India. EU RR is progressing as planned. End of RR will be in 12/2015. Participation of US EPA could be supported by EU Diesel vehicle at the beginning of 2016. **US EPA** confirmed participation in EU RR as well as **China** will participate in Asian RR. Crossover tests (US <-> EU <-> India) are intended. Interim reports will be presented in meeting #11.

- Definitions:

Proposal from **B. Coleman** on Gtr 15 definitions (WLTP-08-45e), initially presented in WLTP IWG #8, was now **adopted by WLTP IWG**. Further amendments in definitions might be possible in case of the on-going process in IWG VPSD and WLTP Subgroup Drafting.

- Drafting issues:

Report was given by **S. Dubuc** (WLTP-09-18e). Open issues were sampled in WLTP-09-26e. Current gtr draft (WLTP-09-04e) was uploaded.

- Organization of Drafting work:

Chair outlined the proposed structure of the Drafting Subgroup with establishment of task force, structure, tasks, members, time schedule (WLTP-09-27e).

First meeting 11-13.03.2015 in Brussels (11th at ACEA and 12th – 13th at JAMA).

Next meeting 17.4.2015 in Stockholm in connection with WLTP IWG (tbc).

Invitations by DC, **S. Dubuc**.

- Indication of temperatures, proposal (WLTP-09-19e) by **M. Bergmann** was **adopted by WLTP IWG**. **Chair** will inform GRPE, especially EPPR IWG.

12. Working Issues for WLTP Phase 2

- Starting note was introduced by **K. Kobayashi** (WLTP-08-41-rev1e, WLTP-08-41-rev1e annex) followed by EV issues of WLTP Phase 2 & 3 by **K. Steininger** (WLTP-08-42e). **EU Com** sees a review of EV provisions in the GTR 15 in WLTP phase 3 as helpful.
- Items of WLTP phase2 by **Japan**, draft position (WLTP-09-20e) and latest MAC study (WLTP-09-20e annex) were presented in GRPE meeting (see GRPE Informal documents 70-26 /-27 /-28 /-29 /-30).
- Contracting Parties and other interested parties were requested to give their **feedback to the Questionnaire until end of February 2015**.

13. Meeting schedule

- 10th WLTP IWG Meeting, Stockholm, **Sweden**, 14.-16.04.2015,
in connection with Subgroup EV (13.04.) & Subgroup Drafting (17.04., tbc)
- 11th WLTP IWG Meeting, Geneva, preceding GRPE, full day requested
- 12th WLTP IWG Meeting, Tokyo, **Japan**, dates t.b.d.

14. AoB

OIL #42 Fuel specific willans factors: **Germany** withdrew the scrutiny reservation of meeting #9 Pune with regard to #42 and the table data on Willans factors for E10 & B7. Draft is included in the gtr. **Item closed**.

IWG WLTP

Co-Technical Secretary

Konrad Kolesa