

Minutes

of 6th WLTP IWG Meeting

Location: University of Technology, Vienna, Austria

1. Welcome:

Chair welcomed the participants and thanked TU Vienna, OEVK and Austria for hosting the WLTP IWG meeting.



2014-03-26_28 - List
of Participants.pdf

2. Adoption of agenda & minutes

Minutes 5th IWG meeting ([WLTP-05-16e](#)) were adopted by IWG

3. Report from Subgroup EV (Annex 8)

Status report on key open issues (OIL #55, 57, 58) was given by chair of EV Subgroup ([WLTP-06-29e](#)).

Concept of phase specific calculation will be re-considered by Japan. Validation depends on decision.

Utility factors (WLTP-06-08e by EU/BMW) were presented.

Chair and TS made it clarify that the methodology of UF development in each region should follow SAE J2841 while currently available UFs are acceptable. EU registration which will be fixed in 2014 is also intended to follow SAE J2841.

Definition of HEV (WLTP-06-04e by EU-COM, WLTP-06-07e by ACEA) was discussed. A proposal was elaborated and shall be reviewed by VPSD. EV Chair to inform VPSD.
(K. Kobayashi)

EV subgroup documents shall be uploaded to UN/ECE website. IWG Chair will clarify with UN/ECE secretariat the notification service and will inform the IWG.
(S. Redmann)

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

Petrol tank inlet orifices (OIL #1):

Proposal ([WLTP-06-09e](#)) was accepted by IWG. **OIL item is closed.**

5. Downscaling / gearshifting (OIL #4-9):

Status report (WLTP-06-10-rev1e) was given by H. Steven.

India recommended evaluation within round robin. This requires a vehicle with manual transmission to be tested.

Definition of gear shift family has to be considered carefully in respect to transmission ratio tolerances. Task force will carry on with work on the open issues.
(H. Steven)

6. Provisions for sailing (OIL #31):

WLTP-06-06-rev1e was presented by ACEA and intensively discussed. It was recognized that sailing technique can improve the fuel consumption in real life. On the other hand several stakeholders raised the concerns to consider sailing 100% in type approval whilst the possible degree of usage by the customer using manual transmissions in real life is uncertain.

Japan stated that the cycle speed trace should be kept. It represents real world driving.

EU COM requested the use of real world usage factors for manual transmissions. WLTP should be the base, other elements should be allocated in Eco-Innovations.

CLEPA suggested to wait for the JRC decision and technical report on eco-innovation for sailing, and would recommend considering then the inclusion in the gtr.

Chair summarized, that approach was understood, and that the Taskforce should continue the discussions and work on a proposal for a draft paragraph. A general decision whether sailing should be included in the gear shift prescription is needed at Meeting #7 in June.

Th. Vogel (GM) was nominated as Task force leader with support from EU COM (K. Steininger), Japan (N. Ichikawa), Germany (O. Eberhardt), NL (A. Rjinders), CLEPA (M. Tappe), T&E (I. Riemersma), France (B. Lopez), Heinz Steven and ACEA.

(Th. Vogel)

7. RLD & dyno setting (Annex 4)

Wind speed criteria (OIL #11):

Starting note on onboard anemometry was given by TNO (WLTP-06-23e). Task force meeting is scheduled for end of April, report in meeting#7.

Ford, Chrysler, GM and US EPA are defining a test program to compare the wind speed measurements methods. CPs are requested to announce participation in the study.

(R. Cuelenaere / C. Hosier)

Torque meter method (OIL #14, 15, 16, 20):

Starting note and status report was given by TNO ([WLTP-06-24e](#)).

Approach for transfer of torque meter coefficients to coast down coefficients is already developed (#15).

Workshop will be performed until end of April. Invitation by Rob Cuelenaere. Progress report planned for meeting #7, initial proposals are expected at meeting #8.

(R. Cuelenaere / C. Hosier)

Road load family concept (OIL #13):

Proposal was presented by BMW ([WLTP-06-11-rev1e](#)).

Comments: Positive feedback from the working group. EU COM requested to consider carefully the ranges in energy demand. TUEV Nord alleged the influence of axle load distribution. NL suggested examining also the issue of extensions.

It was agreed to perform at least one validation measurement. Test plan proposal shall be adopted at IWG meeting #7 in Geneva. Validation shall be finalized until October 2014 (in advance of IWG meeting #9).

Early decision on the family concept is necessary, because it is needed for other open RLD issues. Therefore the general concept shall be mostly agreed at IWG meeting #9 and finally adopted at IWG meeting #10 (Jan 2015).

Task force lead: Chr. Lueginger

Additional members: TUEV Nord (H. Schmidt), NL (A. Rjinders), EU COM (K. Steininger), France (B. Lopez).

(Chr. Lueginger)

Wind tunnel method (OIL #10, #18):

Wind tunnel method with flatbelt: Starting Note was given by BMW ([WLTP-06-12-rev1e](#)).

Work will start with objective to develop an alternative RLD method which delivers absolute values; fallback is a referencing to coast down method.

Japan demanded same accuracy as coast down method and inclusion of classic dyno test benches (at least for validation purpose). This was generally supported.

Approach to demonstrate equivalency (WLTP-06-12-rev1e) was generally accepted, details to be discussed in task force.

Industry will launch a comparison study in 2014 for demonstration of equivalency. Planned are testing of 5 vehicles on 3 tracks and 2 chassis dyno (see presentation by PSA, WLTP-06-30e) from June to September Method is described already in ISO standard 10521 (2006).

Test plan to be aligned with validation plans of other RLD issues. Adoption of general RLD validation test plan is foreseen at IWG meeting #7.

(Chr. Lueginger /R. Cuelenaere)

Alternative warming up procedure (OIL #19):

Status report was presented by Japan (WLTP-06-25e). No comments. Decision was postponed to Meeting #8. OIL has to be actualized.

(T. Yamaguchi)

Default road load parameters (OIL #17):

Starting note was given by OICA (WLTP-06-26e). OICA will contact TNO to agree upon which data will be helpful to improve current gtr formula.

(Bill Coleman /TNO)

Selection of speed range, speed points, ref. speeds (OIL #12, 21):

WLTP-06-05e was withdrawn by Japan. Initial proposal (WLTP-06-13e) was presented by AUDI and intensively discussed.

The approach of an uniform increment of reference speed points of 10 km/h from 20 km/h on was supported for coast down method. Open is the maximum reference speed for different cycles and used cycle phases (3 or 4).

Japan will develop a new text. India claimed to be included in this task. Japan will circulate the proposal until end of April. Industry requests considering test burden for torque meter method.

The issue was near to adoption; therefore Chair proposed that the item could be closed by written procedure without putting it on the agenda of an IWG meeting again. The task force should provide an amended and agreed proposal (WLTP-06-13-rev1e), which will be distributed by WLTP Chair to the IWG and is adopted after a certain period of silence.

TNO will convene a special task force meeting.

(Rob Cuelenaere)

8. Test equipment and calibrations (Annex 5):

Provisions for 4WD (OIL # 22, #23):

Japan stated that the recently published US 1066 regulation will not require any changes to the 4WD provisions in the gtr. **OIL item # 22 is closed.**

Proposal for item #23 expected at IWG meeting #8, instead #7.

(T. Yamaguchi)

9. Test procedure and conditions (Annex 6)

Number of tests (OIL #27):

Brief oral progress report by N. Ichikawa. No benefit is seen in validation testing. OICA gave an oral introduction in an envisaged approach to reduce the number of tests.

Task Force leader (Ichikawa-san) asked for interested parties and will convene the nominated members: Germany (H. Schmidt), India (H. A. Nakhawa), EU COM (K. Steininger), AUDI (M. Bergmann).

OICA will present a starting note in meeting #7.

(M. Bergmann)

Ambient temperature correction test (OIL #32):

Chair asked CPs of intentions to introduce this additional test. Japan and India stated, that there is no intention of implementation.

Progress report on key elements & validation by EU/BMW ([WLTP-06-14e](#)) and Gtr draft proposal by EU/BMW ([WLTP-06-15e](#)) were consequently not presented.

ACEA stated to support the draft for technical clarity reasons but does not claim an introduction in gtr.

EU COM stated that this test will be a regional requirement in Europe.

Chair will report to GRPE in June 2014. OIL item will be closed after confirmation by GRPE.

(S. Redmann)

Driving trace index (OIL #41):

Study by Japan (WLTP-06-16e) showed potential as quality criteria for following the speed trace. It is suitable as screening tool, but not foreseen as CO2 normalization tool.

Japan invited other parties to participate in validating the tool. India, EU COM and OICA showed interest.

In Europe the ongoing correlation measurements might be used to validate the tool. ACEA will send a proposal to EU COM. **(M. Bergmann)**

Approach will be improved further based on validation results. **(T. Yamaguchi)**

Handling of Manual Mode with Automatic Transmission:

Proposal by ACEA (WLTP-06-17e) was discussed. NL raised a scrutiny reservation.

A provisional task force has been established, led by B. Coleman.
Members: NL (A. Rjinders), Japan (T. Yamaguchi), T&E (I. Riemersma), Germany (O. Eberhardt), H. Steven.

Positive scrutiny feedback by NL: WLTP-06-17e adopted.

Negative: task force should provide a proposal for IWG meeting #8.

(A. Rjinders / B. Coleman)

Other OIL items of Annex 6:

#33:

Task force leader will involve L. Hill, B. Ramacher and M. Bergmann.

(T. Yamaguchi)

#34 – 38 (handling of ki approach):

Issues are connected. State of play unclear. Therefore Chair requested a starting note for IWG meeting #7 to explain the problem and outline possible solutions.

Task force leader will involve JRC (A. Marotta), OICA (C. Hosier, J. Seiler), TUEV Nord (H. Schmidt).

(N. Ichikawa)

#39,40:

Issue seems to be already solved in gtr. Task force leader will check and give feedback to IWG.

(H. Schmidt)

10. Calculations (Annex 7)

Density of HC (OIL #42):

Proposal by ACEA was presented (WLTP-06-18-rev1e).

The introduction of a generic formula to calculate the density of HC was welcomed. Comparison of stated and calculated values should be added. Stated value should include EU reference fuels (e.g. E10).

Circulation of amended proposal within the task force by leader Th. Adam until end of April 2014. Nominated experts: JRC (C. Astorga), Germany (O. Eberhardt), France (B. Lopez), Japan (N. Ichikawa) and EU COM (K. Steininger, G. Martini).

After positive feedback from the task force, the amended proposal (WLTP-06-18-rev2) is adopted and the OIL item closed. In case of no agreement, the issue will be re-discussed at IWG meeting #8.

(Th. Adam)

Additional pollutants (OIL # 44–46):

The progress report (WLTP-06-32e) on validation phase 2 for additional pollutants was given by JRC (C. Astorga). In addition a report on ammonia (WLTP-06-27e) has been provided by JRC.

NH₃-Measurement will stay as undiluted measurement method. Equivalence was shown for 3 methods. India requested to check water interference within round robin exercise. NL asked for inclusion of a CNG vehicle in round robin.

Issues of Subgroup AP will be continued in expert group on OIL for Annex 5 and 7. Chair asked JRC to coordinate this task force. Feedback will be given.

(C. Astorga)

11. Normalization procedures

Normalization study of EU COM (OIL #48)

Update on WLTP-05-13e and explanation was given by EU COM (WLTP-06-31e).

Japan showed general interest but needs more information to provide a more detailed position which of the correction algorithms should be further discussed with the aim of harmonization in the gtr.

EU COM stated that an intermediate report will be available mid of April and will be provided to WLTP IWG asap. A final report is foreseen for June 2014.

India will scrutinize the document and will give feedback. Industry will give feedback as soon the study is available.

Chair underlined that the general decision whether normalization procedures should be harmonized is necessary latest at IWG meeting #7 in June.

Therefore CPs, other stakeholders and Industry are encouraged to give feedback asap.

Chair requested an initial **feedback until mid of May** (deadline depending on availability of the EU COM report)

12. Organization of Round Robin Exercise

Proposed test plans of Asia and Europe were presented by OICA (WLTP-05-19e (N. Ichikawa) & WLTP-06-28e (B. Coleman)).

India and Korea gave a positive feedback in advance of the meeting. Chair informed US EPA by mail about the test plans and asked for feedback and participation.

13. General issues

Drafting issues:

S. Dubuc reported on drafting and editorial changes in the gtr (WLTP-06-20-rev1e).

Chair outlined that WLTP IWG cannot deal with all editorial issues, corrections and "minor" amendments. Therefore the following procedure was suggested:

- Editorial comments should be provided directly to the Drafting Coordinator with WLTP IWG leading team in copy
- The proposal will be classified as follows:
 - 1) Purely editorial → will be transposed directly to the gtr draft by DC or
 - 2) Proposals to be confirmed before transposition by other experts or
 - 3) WLTP IWG leading team decides that the issue needs to be discussed in IWG with all experts and the issue will be put to the OIT.

Regarding class 2) issues:

Subgroup EV is tasked to deal with the open EV questions from the drafting coordinator. Rob Cuelenaere will coordinate the feedback from RLD experts. Due to the lack of other subgroups or coordinators, it was suggested that, e.g. for all measurement and calculation issues C. Astorga from JRC will coordinate the expert feedback to the Drafting Coordinator. Needs to be confirmed by JRC.

All the transposed changes will be highlighted in the updated gtr draft, which will be provided in advance of each IWG meeting. This ensures transparency and shall avoid bypassing of (minor) decisions.

With regard to pure correction issues the Chair will clarify the boundary conditions for a Corrigendum of the adopted gtr No 15 with the UN/ECE secretariat.

An update of the gtr draft (of phase 1B), which includes all wordings decided by IWG and editorial changes introduced by the Drafting Coordinator, will be made available in advance of each IWG meeting via UN/ECE website.

The order of documents will be the following for each IWG meeting:

WLTP-xx-01 – invitation

WLTP-xx-02 – agenda

WLTP-xx-03 – updated OIL

WLTP-xx-04 – latest update of the gtr draft

WLTP-xx- ... – working documents

WLTP-xx-yy - minutes

Overview of definitions by EU (WLTP-06-22e): Issue of unused definitions wasn't discussed in details. Needs to be clarified.

14. Meeting schedule

- 7th WLTP IWG Meeting, June 2014 (Geneva, 4th June, 9:00 - 13:00)
- 8th WLTP IWG Meeting, October 2014 (date & place t.b.d.)

For the Minutes

K. Kolesa
(WLTP IWG Co-Technical Secretary)