

DTP8 Wrap-up an open issues

The 8th DTP meeting was held on 18th January 2012 during the whole day at UNOG offices.

General issues

1. WLTP Roadmap Revision

The WLTP revised roadmap was presented by Ichikawa-san. There will be a delay of about two months in the start of validation phase 2 due to the prolongation of validation phase 1 for the driving cycle and gear shift prescription. Validation phase 2 and confirmation test have to be completed by the end of this year as previously agreed. VTF will provide a detailed test plan. The roadmap has been adopted by DTP so far. The only question concerns the need of an additional GRPE session in autumn.

2. GTR Drafting Coordination

The new Drafting Coordinator (DC) introduced himself. He mentioned that he had worked in Canada for the Environment Ministry and then 27 years at Porsche AG in the fields of emissions testing and emissions/fuel consumption regulations. He was awarded the contract of DC by the European Commission effective December 1, 2011.

A proposal of collaboration workflow between DC, DTP and DHC has been presented and accepted by DTP so far (WLTP-DTP-08-10).

The proposed GTR structure (WLTP-DTP-08-11) is based on groundwork laid down by previous DTP members in conjunction with reference to current GTRs, e.g. GTR 2 (motorcycles), GTR 4 (heavy duty engines). A proposed structure was presented at a EU-WLTP meeting on December 20, 2011 in Brussels, with comments being requested with a deadline in mid-January 2012. Comments received are highlighted in green in the attachment and consist mainly of:

- definitions to be placed in one location in the GTR
- it will be considered whether "General requirements" should refer at all to "vehicle durability" and to "vehicles in good condition"
- shift points will be included as an appendix under "Drive Cycle"
- the subject of system equivalency is still debatable
- subsections of "Test Equipment and Calibration", "Test Procedure" and "Calculations" will not be subdivided according to fuel types
- whether OBD belongs in this GTR

After the DC's presentation, the following comments were received from the floor:

- the word "scope" should be eliminated from the section title "Purpose and Scope"
- a section on System Equivalence is desirable but not essential
- OBD does not belong in this GTR, but rather in the existing heavy-duty GTR

The DC's presentation will be placed on CIRCA and all interested parties are requested to

submit their comments to the proposed GTR structure no later than Friday, January 27, 2012.

3. Preparation of validation phase 2 (VP2)

The start of validation phase 2 has been postponed until the end of validation 1.b that is now scheduled by mid-March 2012.

The preparation work of VP2 can be divided in 3 main blocks (WLTP-DTP-08-13):

- a. Preparation of the overall VP2 test plan and management of the project (VTF).
- b. Data analysis, assessment criteria, corrective measures (DTP & DTP Subgroups).
- c. Information package (Technical Guidelines) for the participating laboratories to execute the tests (i.e. Driving Cycle and GS, Parameter List, Test Sequence, Mode construction, Data reporting, etc..).

Item c is completed (of course the information package can and will be updated).

Item b is ongoing.

Regarding item a, the delay in the start of VP2 and the intention to meet the overall deadline of the WLTP program require that the detailed planning (including overall test plan) of VP2 is combined with the planning of the Confirmation Test, with a view to see whether they can be completed by end of 2012, as currently planned.

The VTF will provide such combined planning of VP2 and Confirmation Test by mid-February.

VTF will also propose a meeting of VTF core group + DTP Subgroups Chairs + Participating Laboratories, to be held in the first half of March 2012.

The proposed mode construction for validation phase 2 has been presented (WLTP-DTP-08-06) and was agreed on principle by DTP. There are some concerns regarding the length of the tests, in particular for labs working on one shift. VTF will review this point in the mode construction for validation phase 2.

4. Family concepts certification issue

OICA agreed to provide a initial draft proposal on how to deal with family concepts within the GTR until the next DTP meeting. Family concepts need to be discussed in conjunction with the combined approach for the vehicle test mass, inertia classes and vehicle selection.

5. Combined approach for the vehicle test mass, inertia classes and vehicle selection

An updated version of the combined approach has been presented by Iddo Riemersma of T&E (WLTP-DTP-08-04). There was a brief discussion on the weight differences between highest and lowest mass, on the driving force behind this approach and on the power absorption methods (running resistance table). There were no fundamental objections to this combined approach. The combined approach will be evaluated in validation phase 2 as agreed at DTP7. VTF will recommend the participating laboratories to ask the manufacturer regarding the specific optional equipment masses. If this information is not available, the maximum optional equipment mass can be estimated, as long as the difference between highest and lowest test mass is not lower than 100kg.

6. Next steps

- a. Next DTP (9th) will be held from 16th to 18th April 2012 in Bern at Hotel Bern (www.hotelbern.ch), in the same place as for DTP7.
- b. The 10th DTP will be held on ____ June at UNOG.
- c. The 11th DTP meeting should be held in September. Final date and location haven't been decided yet. Contracting parties having interest in hosting this meeting are kindly asked to contact DTP chair as soon as possible.

Subgroups reports

All subgroup reports will be posted on the CIRCA and UN-ECE website:

<http://circa.europa.eu/Members/irc/enterprise/wltp-dtp/library?l=/&vm=detailed&sb=Title>

http://www.unece.org/trans/main/wp29/wp29wgs/wp29grpe/wltp_dtp08.html

Lab processes – Electrified vehicles:

1. The group still has eleven open issues, and eighteen issues agreed or that has been deleted.
2. Eleven issues will be evaluated during the validation phase 2. A parameter setting list is developed for validation phase 2 which also includes an explanation picture. The group also wants participants to the validation phase 2 that can test electric vehicles, both pure electric as hybrids. Japan has also conducted a study on the charging voltage, that is, the voltage of the grid. There is reason to evaluate the voltage at charging in validation phase 2.
3. The timetable has been adapted to the changes occurring in the DHC.
4. The group will hold a meeting in mid-March to discuss proposals for the first version of the GTR text. The first version which do not include amendments from validation phase 2.

Lab Processes – ICE:

1. LabProICE reported on the working progress. Main points were the preparation of validation phase 2 (parameter list) and multimode gearboxes.
2. Issues of soak and test room temperature as well as method of subtraction of intake air remain on DTP level for the further discussion after validation phase 2.
3. All other remaining open issues are not relevant for validation phase 2 and will be handled inside LabProICE group.
4. LabProICE will give feedback on the need for validation the road load determination procedure to DTP and VTF.
5. US 40 CFR Part 1066 is under development. Final rulemaking planned for late 2012. LabProICE experts follow this development and are in close contact with US EPA to detect possible divergences. The main questions are how to deal with possible differences in future and to what extent is disharmonization with US legislation in the frame of the 1998 agreement acceptable.
6. Regarding the GTR drafting work, it is important to review the lack of definitions and to decide on the responsibilities for providing the necessary definitions. Guidance by DTP and drafting coordination (DC) is urgently needed.

PM/PN:

The majority of the PMPN subgroup issues were technical in nature and able to be successfully resolved by the subgroup. PMPN has now closed all but 10 of the open issues, which are listed below together with the actions needed to achieve resolution.

- a. Filter media conditioning post test (validation 2 data required for decision).
- b. Corrections of PM/PN measurements for tunnel contamination (data required to validate draft proposals for both main part of validation 2 and additionally for the regeneration study)
- c. Dilution air temperature (links with test cell temperature / LabProc issue)
- d. Number of particulate mass filters used (depends on mode construction and WLTP decisions, although PMPN recommend the minimum possible to minimise errors).
- e. Frequency of vacuum side leak checks of PM sample line (PMPN discussions continue)
- f. Reference filter weighing (validation 2 data to confirm draft proposal is feasible)
- g. PN measurement during regeneration (validation 2 regen study data required to assess whether reliable / repeatable)
- h. VPR solid particle penetration efficiency specification (to be determined post results of the PMP VPR round robin study)
- i. PNC aerosol calibration material (to be determine during calibration guideline discussions)
- j. Evaporation tube (part of VPR) temperature setpoint and control tolerance (Validation 2)

The major remaining question listed above concerns the assessment of the particle number measurement system under particle filter regeneration conditions. The regeneration study has been designed as an optional part of validation 2.

The regeneration study involves several tests of fully loaded diesel particle filters under regeneration conditions over the WLTC, using two Particle Number Counting systems in parallel, both set at different dilution settings (max and min) to assess whether any volatile particles survive the VPR (volatile particle remover). In addition to the parameter list and the open issues list, the PMPN subgroup has provided a regeneration study protocol and description.

Next steps : Starting during Q1 2012, Calibration guidelines to be reviewed, taking into account the work from the informal PMP group on the VPR round robin.

Additional Pollutants:

1. Group is making good progress in regular meetings with good level of participation.
2. APs have been specified and possible measurement technologies have been identified.
3. Basic sections of GTR have been drafted.
4. Parameter list and issues to be addressed in VP2 are defined.
5. For the AP-Group VP2 will only be focused on measurement of NO₂. Two different approaches (bag/diluted) will be compared and final method will be decided upon test results. List of open issues will be worked on.
6. No issues that require input from DTP for the time being.

Reference Fuels:

1. The Reference Fuels Sub Group was established to essentially consider two issues. The primary reason is to be available at later stages in the gtr development to define the reference fuel specifications that will be included in the final gtr. Experience tells us that this could be a difficult discussion, the intent should be in the direction of harmonisation but experience suggests that a list of alternative specification for regional selection may be more realistic. This will be influenced by developments in harmonisation of fuel quality specifications in the meantime and therefore will be a relatively late action but the preparation must be started as early as possible.
2. Data on the reference fuels currently used within the participating Contracting Parties has been collected and in order to maintain currency will be circulated for review during the next few months.
3. The second task of the sub group was to be available to answer fuel related questions within the work of WLTP and to recommend reference fuel for the test stages.
4. To date there have been no questions but these will certainly arise as the work progresses. In terms of the test programmes, Validation 1 was and is independent of the fuels used and due to time and financial constraints it has been agreed to perform Validation 2 testing on the reference fuels applicable to the legislative region that the lab represents.
5. It is still slightly too early to define the reference fuel strategy for confirmation testing and further test programmes but as the sub group has been established it can react at relatively short notice.

For the wrap-up:

18.01.2012, G. D'Urbano, DTP chair