WLTP-IMD-08e

**MINUTES of the intermediate WLTP IWG Meeting**

**in conjunction with OBD and Low Temp. TF**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **February, 2020** | | | |
| **18th (Tue)** | **19th (Wed)** | **20th (Thu)** | **21st (Fri)** |
| **for** | **OBD** | **IWG** | **IWG** | **Low Temp** |
| **Time** | **10:00**  **~17:00** | **9:00**  **~17:30** | **9:00**  **~16:00** | **10:00**  **~15:00** |
| **Venue** | **ACEA** | **DG-GROW\*** | **ACEA** | **DG-GROW\*** |
| **Brussels, Belgium \*) registration is required** | | | |
| **Event** |  |  | **European**  **History** |  |

**< > indicates the purpose of each agenda**

**IS** : Information Sharing, **D** : Discussion, **RC** : Reach Consensus

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* (19th February, 2020) \*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

1. **Pre-Intermediate Meeting <D to RC>** (9:30-12:00)
   * Status Report by OBD TF
     + A. Takehiro gave presentation on status of OBD TF (WLTP-IMD-07e)
     + Two outstanding items for finalisation are around test method for default mode (text being drafted) and the need for a certification requirement within a GTR.
     + R. Gardner shared the latest word version of the GTR text.
       - There are several differences from the UNR in terms of structure etc.
       - There are still some areas to be decided:

<Conclusions>

* Thresholds not to be included in the GTR
* OBD should be an annex and not an optional annex.
* Amend text to “An OBD driving cycle means consists of key-on, a driving mode where a malfunction would be detected if present, and key-off.”
* Change all references to “driving cycle” in OBD text to “OBD driving cycle”
* Leave section 4. Requirements of type approval authorities in, even though it is slightly unusual for a GTR, but requirements are harmonized so adds value to the GTR.
* Paragraph 4.2.2 to be revisited at a point in the future
* CoP taskforce will have a separate meeting to finalise the drafting of the CoP section in Amendment #6

<Discussion>

* + - * + Document for GTR was based on the UNR. The UNR needed to have OBD thresholds. Should these be in a GTR? For example, GTR #15 does not have emissions limits, because these should be specified in the regional implementation. GTR #19, however, does have limits specified, albeit with contracting party option. Which approach should be applied to GTR OBD?

B. Thedinga noted that the GTR could include thresholds if the values are harmonized. Not sure they should be included if it is necessary to have two different tables.

W. Coleman stated that he would generally be supportive if the values were harmonized. He does not view it as appropriate to include tables which show the lack of harmonisation within a GTR. His suggestion is to put them into the working document to be submitted to GRPE and allow Contracting Parties to object if they wish to.

S. Miyazaki noted that Japan would prefer not to include threshold into GTR

B. Thedinga noted that OBD should be an annex and not an optional annex

* + - * + In UNR-83, there is a clear definition of driving cycle in relation to OBD. Is the term “driving cycle” confusing in the GTR?

W. Coleman noted that it probably is not confusing in the GTR because there is a definition in the OBD. It is more likely that it probably needs to be changed in other pieces of text.

R. Gardner noted that the current definition does not make it clear that it is only in the context of OBD.

W. Coleman referred to the example of emission control system, where, if there was no clear context of OBD, the definition would invalidate the defeat device legislation.

B. Thedinga suggested the definition could be aligned in the OBD context to the SAE definition

W. Coleman noted that this could present inconsistencies in EV operation, where you might key off between WLTCs

Chair asked for clarity on what is written in the SAE standard?

W. Coleman believes that it is consistent with the draft OBD text

B. Thedinga noted that, realistically, it is unlikely to be possible to change the definition everywhere else and that the HDV and L cat legislation would also need to be checked for consistency.

Chair noted that it might be clearer to add “in the context of OBD” everywhere that driving cycle is referred to in the OBD text.

W. Coleman suggested that it would be better to call it “OBD driving cycle”

* + - * + Requirements related to type approval authority would not normally be included in a GTR text. Should they be deleted?

R. Gardner noted that the default position would be to leave it out, but would the IWG prefer to have such administrative elements in the GTR?

W. Coleman suggested that it should be left in the text for GRPE and then let Contracting Parties object

R. Gardner noted that this is the only place where Type Approval Authorities are referred to in the GTR. It seems inconsistent if this is only the case where administrative processes are referred to.

B. Thedinga agrees that we should keep to the principle of leaving administrative processes in the regional implementation

W. Coleman noted industry would prefer to have as much as possible in the GTR and as this topic is harmonized, there is no issue

S. Miyazaki noted that Japan has no strong opinion of whether it should be included or not

W. Coleman noted that it does not say anywhere that a deficiency has to be accepted, so Contracting Parties are not obliged to do anything based on the current wording. Including the wording however, would ensure that the possibility of accepting a deficiency is included in any regional implementations.

C. Vallaude noted that as this is harmonized topic, there does not appear to be a strong position within the IWG members.

R. Gardner questioned whether it needs an “if applicable” or can it just be left in its current form?

W. Coleman noted that he did not see the need to change.

* + - * + Paragraph 4.2.2 states the type approval authority will not accept any deficiency request that does not respect the OBD thresholds by at a maximum factor of two. This would give an inconsistency between the GTR and the UNR.

B. Thedinga noted that in the EC view, it is not really justified to have the factor of two here. Could bring into line with what is written in the heavy duty GTR

E. Collot noted that the heavy duty concept comes from the CARB requirements.

Chair questioned whether, as it has been agreed to remove the thresholds from the GTR, this point remains relevant

R. Gardner noted that it is because the term threshold will still be used, but in the context of being set by regional implementation.

E. Collot agrees with EC that there is no real justification to have the factor of two in the GTR.

W. Coleman noted that the current EU legislation effectively means that deficiencies cannot be allowed because the deficiency rules are not allowed if the thresholds are exceeded but deficiencies are only necessary if the technology cannot meet the thresholds. The existence of deficiency rules is a protection for future in order to avoid legislation becoming infeasible.

I. Riemersma suggested that as the thresholds have been removed, maybe this should be left to the regional implementation. The deficiency is needed due to the difficult of meeting the threshold so if the thresholds are not included in the GTR, what is the purpose of this being here?

W. Coleman noted that this is purely about technical feasibility and this would therefore be a technical guideline for how to manage a situation should it arise. Specifying a factor of two at least puts a limit on what the deficiency can be.

S. Miyazaki agreed that the UNR text does not make sense so can see the need for having a limit. In Japan legislation, there is no limit currently; it just refers to technical feasibility.

Chair asked whether this issue could be solved by drafting? This could then ensure that globally the thresholds are never exceeded by more than a factor of two but not commit anyone to allow this in their regional legislation.

W. Coleman agreed that the current text does not commit the 1958 Contracting Parties to accepting this in their regional legislation.

B. Thedinga stated that the EC still cannot accept as the factor of two as there is no justification.

W. Coleman suggested that paragraph 4.2.2 could be removed altogether but then there is no control at all over what can be allowed.

Proposal : [The responsible authority shall reject any deficiency request that does not request the OBD thresholds set out in regional legislation multiplied by a factor required by regional legislation up to a maximum factor of two.]

* + GTR Drafting, if time allows
    - R. Gardner went through latest status:
      * Amendment #6 to GTR #15 which will include OBD
      * New optional annex for Type 5 test needs discussion
      * Holding place for an OBD annex
      * Holding place for a separate Type 6 test
      * CoP text copied in from UNR, so need to look at which of the administrative provisions should be included.
      * Deleted anything to do with the Type 4 text as that is included in GTR #19
      * Deleted any reference to OBDFCM.
      * Includes all of the amendments from the GSTF that were included in the UNR – correction needs to be made as well
      * Needs to include all of the new families and new family definitions to align with the UNR
      * CoP and Durability content is already in UNR so just needs editing to be suitable for GTR
      * OBD and Low Temp sections - still need to confirm content.
      * Annex 8 not yet amended in the current draft as there is still discussion on content
      * Discussion needed on whether a 1998 agreement regulation can make reference to 1958 agreement CoP procedures
      * Number of vehicles for audit fall under administrative procedures, so this could just refer to regional legislation requirements for the testing requirement, if it needs to be included in the GTR at all.
      * I. Riemersma noted that most of 8.1 can either be deleted or referenced to the regional legislation
      * CoP taskforce will have a separate meeting to finalise the drafting of the CoP section

1. **Welcome & Organization <IS>** (13:00-13:15)
   * Welcome by Chair
     + Working documents need to be submitted by 17 March 2020 for inclusion in GRPE 81.
2. **Adoption of Minutes & Agenda <RC>** (13:15-13:45)
   * Minutes of 29th WLTP IWG meeting (WLTP-29-13e)

* Minutes of 28th meeting agreed – upload final version
* Minutes of 29th meeting – members of WLTP IWG to provide comments within 2 weeks
  + Proposed Agenda (WLTP-IMD-02e)
    - Agenda agreed and adopted.

1. **Working documents for GRPE-81 <D>** (13:45-14:30)
   * Further steps to finalize the working documents
     + GTR #15 Amendment # 6

<Conclusion>

* ATCT will not be included in the GTR at this stage.
* Extrapolation and interpolation concept for PEV not to be included at this stage
* Extrapolation concept for OVC-HEV not to be included at this stage
* Leave in full text of 4.1.1.3 to remain aligned with UNR but consider deleting at the next opportunity for revision of the UNR

<Discussion>

* Including durability, low temperature, OBD and amendments made to the type 1 test carried across from UNR
* Discussion on inclusion of ATCT in Amendment #6
  + S. Mayazuki noted that Japan accept ACTCT into UNR WLTP because it was necessary to create UNR, but their original position was not to include ATCT as it was not discussed and agreed from a technical perspective in WLTP
  + W. Coleman noted that he would not support ATCT being in GTR
  + B. Thedinga noted that the EC position is still under development but will be confirmed before 17 March
* EV-related points that might be inputs into Amendment #6
  + Extrapolation / interpolations for PEVs

Japan could not accept this to go into Amendment #6 without further justification and concrete proposal

EC would need extra input to justify the need for this and a full proposal

Both Japan and EC would be willing to reconsider if justification is provided

* + Extrapolation for OVC-HEVs
    - Japan do not see the need to include
    - EC equally do not see the need
    - SG-EV needs to do further work before this can be included so this will not be included with Amendment #6
  + Amendment of wording of nominal voltage
    - EC would support
    - Japan need to consider the proposal
    - Will be included if no issues
  + CoP testing for PEVs
    - No need for discussion here
  + CO2 correction factor determination
* Proposal to remove the following text in paragraph 4.1.1.3 “…the CO2 mass emission correction coefficient shall be determined according to paragraph 2 of Appendix 2 to this Annex”
  + Declared number of cycles in CD mode for OVC-HEV
    - Japan need to review.
    - EC do not have a strong view
  + Post-processing table updates from January 2020
    - Keep tables as they are but check for errors
    - R. Gardner noted that any errors should be corrected in the UNR too
  + Kco2 correction factor (CO2 / fuel consumption correction for (N)OVC-HEV and (N)OVC-FCHV)
    - Additional testing without any additional value
    - ACEA proposal for calculation will remain on the agenda of the Low Temp TF
  + Text needs to be developed
  + CoP family could be basis for creating the correction factor family
  + N. Ichikawa asked why manufacturers need to provide evidence? He would support if this requirement is removed.
  + I. Riemersma noted that he would like to see some data to support the proposal from ACEA
  + No conclusion possible during this session as this is the first time that members of the IWG have seen it.
  + M. Naegeli confirmed that the intention of the proposal is to provoke discussion around how to reduce the amount of testing which does not bring additional benefits.
  + Question over whether it is possible to resolve this ahead of March 17 given the fact that there appears to be a reservation around this topic.
  + B. Thedinga noted that it can be reviewed as soon as further information is received
  + It will be kept on the agenda of SG-EV
  + It will be included, in square brackets, in the working document
  + Decision will be made during IWG-WLTP in India or Geneva ahead of GRPE
* General comment from I. Riemersma – we are very reliant on R. Gardner to know where the discrepancies between GTR and UNR exist. Would be extremely helpful to have a maintenance document.
* No further requests for additional topics to be included within GTR #15 Amendment #6.
  + - UNR83-08
      * Addition of in-service conformity requirements will be based on the EU regulation but amended by work from the IWG-RDE on UNR-RDE.

Note: UNR-RDE and GTR-RDE will also be submitted as working documents for GRPE 81

* + - * It will only include type 2 test, type 3 test and “old” type 6 test
  + Mandate to TFs and drafting coordinator

1. **Low Temp Procedure\_Part1 <D to RC>** (15:00-17:30)
   * Auxiliary device, Equipment, Road-Load
     + Presentation from Christophe Petitjean on Auxiliary Devices Sub-Group

* O. Berg noted that the HVAC would turn down at 600s so is 900s reasonable.
* C. Petitjean noted that there is a lack of data, which makes it difficult to assess. If there are additional results to provide evidence, then that would be good, but basically looking for a time by which the majority of systems would have reached temperature.
* W. Coleman asked for clarification that this is a GTR?
* C. Astorga confirmed that it is an optional annex to a GTR
* W. Coleman noted that if it is not actually a legal text at this stage, the GTR could be drafted and then with experience of testing to those requirements, amendments could be made if needed.
* W. Coleman noted that paragraph 1.2.2 specifies what you do after 986 seconds. A colleague read this section and understood that paragraphs 1.2.3 and 1.2.4 also specifies the actions for that same time period.
* C. Petitjean stated that he will re-order to move current paragraph 1.2.2 to current 1.2.4 and that will make it clear
* R. Gardner confirmed that this will be an alternative to Annex 6 of the GTR. Type 1 would still be with DRLs on, for regions where this is applicable.
* P. Cognet noted that there seems to be a big differential between a fully automatic system and manual only. There will be many systems somewhere in between, with parts of the system being automatic but not all. He noted that it would be better to explain the automatic definition of each of the 4 parts of the system. This would allow semi-automatic features to operate “normally” during the test.
* B. Thedinga noted that these are systems supplementary to the EU requirements on defrost / demist, so need to be taken into account if they are switched on
  + Family Definition
  + ICE, NOVC-HEV and OVC-HEV (CS condition)
  + Table of open items: see updated document from P. Bonsack
    - Road Load
* Proposal from N. Ichikawa that, for the setting of the manual gear shift points, it should be possible to use manufacturer’s data as an alternative. If EU agrees to this, Japan will accept ATCT! Using the same settings between test sites should be within 9N.
* C. Lueginger noted that this will only work if you have the same diameter and configuration of the rollers as well.
* N. Ichikawa agreed to include that in the proposal
* B. Thedinga questioned how the type approval authority would know that the manufacturer’s recommendation is reasonable?
* I. Riemersmo states that he might accept road load from a manufacturers if it is only for F0 only
* N. Ichikawa noted that this might make calibration difficult
* Continue discussions between now and Friday’s meeting.
* Equipment
  + New proposal from Horiba to be discussed at Friday’s drafting meeting
* Specified test fuel (petrol only)
  + Proposal on reference fuels for Type 6 from N. Ichikawa to change the specification for Japan fuels and some of the European fuels
  + This would be an additional specification for Type 6. Specification for Type 1 would remain the same as currently.
  + Proposal for RVP to be in the range of 81 – 85. This is based on EU market survey.
  + This needs further discussion - again for inclusion in Friday’s drafting meeting
* Gas-fuelled vehicles
  + N. Ichikawa stated that Japan had no new proposal so can accept same fuel specification as for Type 1
  + W. Coleman noted that there should not be a requirement to test on 2 reference fuels if at all possible

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* (20th February, 2020) \*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

1. **Low Temp Procedure\_Part2 <D to RC>** (9:00-12:00)
   * OVC-HEV (CD condition) and PEV
     + M. Naegeli gave a summary on Low Temp procedure for EVs
       - Pure Electric Vehicle – shortened test procedure or consecutive cycle procedure
     + T. Haniu gave a presentation on a proposal for PEV test procedures for Type VI test

<Conclusion>

* SG-EV to develop (and re-name) the S-STP

<Discussion>

* + - * Presented the key points that need to be evaluated
      * Conclusions:
        + Japan proposes the S-STP with specifically defined soak and charge operation
        + UBE family definition needs further discussion considering the balance between required accuracy and testing burden
        + S-STP also appears to be the best candidate for Type 1, but final decision should be made at a later date
      * E. Paffumi noted that there still needs to be some discussion on soak time. JRC have data from 2014/2015, so need to bear in mind that it was different technology available at that time. Data from monitoring of the temperature of the battery during charging:

After 11 hours of soaking without charging, the battery is cold again.

With warmer temperature, 10% difference on UBE

20% difference between CCP at cold and at 23oC

There is a definite impact on electric range when the battery is cold

Might be difficult to apply a shortened test procedure at cold

* + - B. Thedinga noted concern that this, as a relatively new item for discussion, is so close to the date for finalising a working document. As far as he is aware, it has been validated on only one vehicle. Normally industry would want to see more evidence than that. Still wants focus to be on the range ratio between 23oC and -7oC.
    - N. Ichikawa noted that if a ratio is the desired outcome, there need to there needs to be a test procedure to obtain the relevant numbers.
    - P. Bonsack noted that there is actually data from three or four vehicles. These showed the same results as those presented by Japan
    - B. Roos noted that they ran this on the Bolt and got very similar results with a little bit less range and a little higher consumption on the three phase method.
    - S. Tripathy also noted that the three cycle test does give a worse result. S-STP is closer to the consecutive method than to the STP. They have data from 3 vehicles
    - N. Ichikawa noted that STP does appears to have a potential issue, so certainly should not be included in the procedure.
    - E. Paffumi noted she is aware of the difficulties with STP. Small and mid-range have these issues, not sure about long-range. More data is needed to be able to make an informed decision. It might be worth monitoring the energy consumption of the HVAC during the cycles to ensure stabilization.
    - B. Thedinga noted that there needs to be a robust justification for the ratio to be based on a different test for -7oC compared with 23oC
    - S. Tripathy noted that this is already the case today; the STP can be done on 23oC but not on -7oC for small capacity batteries
    - M. Naegeli noted that the result seems to be on a similar level from each of the different procedures
    - P. Bonsack noted that there is a need for some reflection on this to see if there can be an indication by Friday as to whether it can be included.
    - The Chair noted that this would be the last chance for WLTP IWG to reflect on this topic.
    - M. Naegeli noted that there is a need for a PEV test method now to give a baseline. The S-STP could then be introduced once there is sufficient data to justify. However, he also noted that it is not clear that there will be a group to do that work.
    - B. Thedinga agreed that this should be the baseline for EC post-Euro 6. It would be simpler if there was a dedicated cycle for the cold test.
    - N. Ichikawa noted that the Japan proposal was to have the S-STP as the dedicated procedure. In the future, it would be beneficial to have the same procedure for Type 1 and 6, but this does not appear possible in the short term.
    - P. Bonsack noted that TF needs some guidance from WLTP IWG for the PEV Type 6 procedure
    - Chair noted that there are clear positions from Japan and EC. Does the group agree give a green light to the SG-EV to continue development of S-STP? He also noted the need to rename the new test procedure.
    - C. Vallaude noted that the evidence presented today seems to show the new procedure is good. Even with more data, she does not believe that would change.
    - B. Roos noted that he could show some additional data if the IWG needs more information.
    - M. Naegeli confirmed that a vehicle also could be provided at short notice to JRC if needed.
    - Conclusion that SG-EV would develop (and re-name) the S-STP. It was noted that it would be challenging to complete this by the deadline of 17 March.
    - M. Naegeli confirmed that the text has already been developed for both alternatives so this only needs refining.
    - B. Thedinga requested that Japan to be integral to the initiative to develop the procedure before 17 March.
    - N. Ichikawa committed that Japan would support.
    - C. Astorga requested ACEA, EC etc to be involved in the final discussions to ensure that progress can be made in the drafting meeting tomorrow.
    - I. Riemersma noted that S-STP had been discussed, but the PEV procedure is not just the test procedure. The other items also need discussion, as they are a critical part of the procedure for PEV.
* M. Naegeli noted that soak, pre-con soak and charge for OVC-HEV section still need to be discussed and gave a presentation on an ACEA proposal.
* I. Riemersma noted that the EC have provided a user case scenario to the low temp TF. Base case scenario provided assumes that the vehicle is charged as soon as it is plugged in and would then charge fully. He does not understand what the reason would be for delaying the start of charging in the Japanese proposal.
* N. Ichikawa noted that small battery will charge very quickly, while the maximum time it could be plugged in for is 36 hours. There is a concern that there would then be a considerably variable period between end of charging and the start of testing. This would make the tests not comparable between vehicles.
* R. Suarez suggested what if the charge would start at the beginning; the battery is known to take 3 hours to charge, and testing has to start within 1 hour of soaking, which is a minimum of 12 hours.
* N. Ichikawa stated that he will take this idea away and consult with other experts
* W. Coleman asked about smart charging principles.
* R. Suarez confirmed that these will be included in a separate proposal
* M. Naegeli noted that it will always be difficult to balance actual use from customers and what might be worst-case
* R. Suarez noted that this is why the proposals have been split into two – one to replicate worst-case and one to give the baseline scenario
* M. Naegeli noted that ACEA proposed at least a 9 hours soak period for second soak
* N. Ichikawa noted that he thinks 9 is OK, but will consider with others
* E. Paffumi repeated that there is an effect on range of the temperature of the battery, which is normally elevated during charging process
* M. Naegeli asked for confirmation from Japan that pre-conditioning should be on appropriate WLTP cycle, proposed as two cycles from Japan.
* ACEA and R. Suarez would prefer one cycle because then it can be used in the same sequence as for charge depleting and charge sustaining testing.
* M. Naegeli noted that there was a 6 – 24 hours soak in the Charge Sustaning test proposed by Japan, which ACEA could support as a manufacturer’s option.
* R. Suarez noted that the options should be the same for PEV, OHV-HEV, NOHV-HEV
* M Naegeli noted that charge sustaining may not need a soak ahead of pre-conditioning for OHV-PEV
* R. Suarez noted that it is imperative that the vehicle is at the right temperature for pre-con
* B. Thedinga noted that the EC could not accept a manufacturer request principle on this topic
* N. Ichikawa wants to see the data on how this will work
* R. Suarez noted that it is clear that SCR operates differently at 23oC and -7oC and will therefore need to have a different calibration for the different conditions
* I. Riemersma suggested that the charge depleting test could be used as a pre-conditioning test for the charge sustaining test. If this is made the mandatory procedure, then it removes any issues around repeatability.
* R. Suarez supported this suggestion.
* M. Naegeli supported this suggestion in principle, but had concerns over what happens if something goes wrong during the charge sustaining mode as this would then result in additional testing.
* Team will develop a new procedure for this during drafting meeting
* Family definitions are still under considerations
  + M. Naegeli noted that ICE could be based on PEMS family criteria but it may not work so well for OVC-HEV which should probably take into account battery size etc.
  + B. Thedinga stated that EC had no position yet
  + M. Naegeli noted that there is one concept for vehicles with an ICE and one for those without currently, but should consider if PEMs family concept works.
  + N. Ichikawa noted Japan would only be in a position to comment once there is a proposal
  + P. Bonsack noted that discussions would be finalized tomorrow and during the next telecons in order to be able to have a working document by March
  + PEV family definition is not yet ready for discussion with IWG
* The Chair noted that there had been a proposal for a validation programme.
* P. Bonsack noted that this is an optional annex of the GTR. As such, it probably does not warrant a validation programme at this stage, but it would be worth then using the GTR to validate the procedure and refine and develop accordingly.
* C. Astorga noted that validation is always an integral part of the development, but validation for this is difficult at the moment as Euro 6d vehicles are currently few and far between.
* W. Coleman noted that manufacturers do have vehicles and they could be part of the validation process.
* B. Thedinga asked whether there are other manufacturers who would be able to provide data?
* OICA stated yes.
* R. Suarez noted that vehicle manufacturers and type approval authorities need to try the new procedure and find a way to address the issues.
* C. Astorga questioned what the expectation of the India meeting was?
* The Chair noted that there will almost undoubtedly be a need informal documents to supplement the official working documents. India meeting should be for that purpose.

R. Gardner noted that there were some corrections and amendments to the working documents adopted by January GRPE

* NO / NO2 sampling paragraph had been accidentally deleted, so should it be reinstated?

<Conclusion>

* This should not be in the UNR so no action needed
* It also should not be in EU-WLTP, so plan to delete as part of Act 3
* Other editorials (error in formula for Prated and row2b in table which applies to Level 1a of Series 00 and hence should not be included) should be made in the UNR
* R. Gardner to consult with the UN secretariat to understand exactly how to make these changes at WP29

1. **UNR83-08 Working Document (ISC, IUPR) <D to RC>** (13:00-14:30)
   * Review draft text (WLTP-IMD-XXe), if available
     + R. Gardner presented the latest document
     + Still work in progress
     + Large parts have now been removed as they exist elsewhere.
     + Definitions need to be amended
     + OBD references need to be removed
     + Paragraph 5.1.8 on odometer requirements. It was noted that the odometer is not technically within the remit of GRPE (GRSG?) so should this be added here just because it is in EU-WLTP?
     + Type VI test will still be the old NEDC one
     + Annex 4a references must be made clear that they refer to UNR83-07
     + Should E5 be deleted from the fuels list in R83-08?
     + There is no CoP needed for the type 2 test, so there will probably just be CoP requirements for type 3.
     + ISC is more closely linked with RDE so will update after the next RDE IWG
     + Manufacturers’ information document and type approval information can have some items deleted but want to try not to duplicate with UNR-WLTP.
     + W. Coleman pointed out that under IWVTA discussions, it became clear that many regulations do not specify information documents. Industry and type approval authorities would prefer them to be specified.
     + E. Collot noted that it was possible to use the information document as it is today and delete the data which are no longer required, or to use the WLTP information document as a starting point
     + W. Coleman noted that, as part of R83-08, it would be necessary to demonstrate compliance to WLTP, but do not necessarily need an approval and therefore would not have an information document. It does not seem to matter much to the manufacturer as they have a database of the information and the document can just be printed if needed. For those using the documents, it may be more important, so please consider what would be most useful
   * 06 series of amendments to GTR#15
     + Include UNR amendments
     + GTR # 15 has the old UN definition of a defeat device. Should this be included in UNR?
     + W. Coleman noted that the GTR must be equivalent to UNR and should be consistent with EU-WLTP.
     + Should monitoring of SCR be transposed into GTR as it is in for the UNR?
     + Japan do not currently have a position but will discuss and come back with a view.
     + Level 1B fuel efficiency from UNR – does this need to be included in the GTR?
     + Japan would like to discuss internally how it should be dealt with in GTR
2. **Report from TF, if available <D to RC>** (14:30-15:00)

* H. Steven update on gear-shifting
  + See minutes to be supplied by H. Steven
  + Discussion on whether to add the codes as appendices – number of pages would run to an additional 700 pages, so it was decided that this probably was not helpful.
  + There is a precedent that they can be referred to and housed on the UN website
  + H. Steven would like to include in Annex 2
  + D. Hannah noted that if it was included for guidance, it must be clear what the legal provisions are and it must be made clear that the legal text takes precedence
  + The drafting of Annex 2 can be included in the agenda for the India meeting
  + The tools are not yet uploaded to the UN site as it makes them fully public. Any members wishing to test the tools can request them from H. Steven.

1. **Next Actions and upcoming Meeting schedule <IS>** (15:15~15:30)
   * Schedule of upcoming meetings  <https://wiki.unece.org/display/trans/WLTP+calendar>
   * 30th IWG meeting : 14th ~ 16th April, 2020 @ iCAT, India

Logistic Information by India delegation

For India meeting, it might be desirable to have webex for those that cannot travel

* + 31st IWG meeting

: 8th and 9th AM June, 2020 @ The Palais des Nations, Geneva

1. **AoB <IS or D or RC>** (15:30~16:00)

Others, if necessary

W. Coleman noted that there should be an additional working paper for the next GRPE. In GTR#15, extended calibration intervals for various items have been allowed, but it has not been taken back into R83.

\*\*\*\* Meeting is facilitated by Leading Team and each TF Leaders \*\*\*\*

**Leading Team SG EV Leading Team**

Rob Cuelenaere (Chair) Peter Bonsack(Chair)

Daisuke Kawano (Vice Chair)

Anna Lindt (co-Secretariat) Matthias Naegeli (co-Secretariat)

Nick Ichikawa (co-Secretariat) Nick Ichikawa (co-Secretariat)