**UNR WLTP 00 and 01 series - Square bracket summary**

The table below lists the areas on UNR WLTP where square brackets are included in the Working Documents (“GRPE-2020-3e” and “GRPE-2020-04e”), which will need to be addressed via an Informal Document for the 80th GRPE.

Updated 9th December 2019

| **Section** | **00 series** | **01 series** | **Update on status (9th December 2019)** |
| --- | --- | --- | --- |
| 3.01 | Vehicle type definition for L1B | Vehicle type definition | JPN accept definition.  00 – delete level differentiator  01 - delete square brackets |
| 3.03. | Placeholder for Level 1B definition for engine displacement | Placeholder for definition for engine displacement | JPN to provide definition |
| 3.2.36. | "Coasting" means a functionality of either an automatic transmission or a clutch which decouples the engine from the drivetrain automatically when no propulsion or a slow reduction of speed is needed and during which the engine may be idling or switched off. | "Coasting" means a functionality of either an automatic transmission or a clutch which decouples the engine from the drivetrain automatically when no propulsion or a slow reduction of speed is needed and during which the engine may be idling or switched off. | Dependent on outcome of discussions on proposed amendment to Annex B6 Para 2.4.2. to include ‘coasting functionality’ |
| 3.3.20.1. | "Off-vehicle charging fuel cell hybrid electric vehicle" (OVC-FCHV) means a fuel cell hybrid electric vehicle that can be charged from an external source. | "Off-vehicle charging fuel cell hybrid electric vehicle" (OVC-FCHV) means a fuel cell hybrid electric vehicle that can be charged from an external source. | JPN can’t accept.  EC to confirm post 18-Dec MVEG.  Include in Level 1A only? Exclude from Scope of Level 2? |
| 3.7.1. | "*Rated engine power*" (Prated) means maximum net power of the engine or motor in kW as per the requirements of UN Regulation No. 85 [or for Level 1B only: TRIAS 99-014-01/99-015-01]. | "*Rated engine power*" (Prated) means maximum net power of the engine or motor in kW as per the requirements of UN Regulation No. 85 [or for Level 1B only: TRIAS 99-014-01/99-015-01]. | JPN do not require reference to TRIAS.  Text in square brackets deleted. |
| 3.7.2. | "Maximum speed" (vmax) means the maximum speed of a vehicle as declared by the manufacturer. [In the absence of a declaration, the maximum speed shall be declared by the manufacturer according to UN Regulation No. 68.] | "Maximum speed" (vmax) means the maximum speed of a vehicle as declared by the manufacturer. [In the absence of a declaration, the maximum speed shall be declared by the manufacturer according to UN Regulation No. 68.] | Updated as follows:  "Maximum speed" (vmax) means the maximum speed of a vehicle as declared by the manufacturer. In the absence of a declaration, the maximum speed shall be determined according to UN Regulation No. 68. |
| 5.4.3. | … [This letter should be chosen according to the Table A3/1 of Annex A3 to this Regulation.] | … [This letter should be chosen according to the Table A3/1 of Annex A3 to this Regulation.] | OK  Square brackets deleted. |
| 6.2.6. | Unique identifier | Unique identifier | Square bracket removed.  Identifier for OBFCM family deleted. |
| 6.3.2.1.2. | [(f) ~~ATCT family, per reference fuel in the case of flex-fuel or bi-fuel vehicles~~;] L1Aonly. | [(f) ~~ATCT family, per reference fuel in the case of flex-fuel or bi-fuel vehicles~~;] | Still to be decided |
| 6.3.6. | Gas Fuelled Vehicles (GFV) Family | Gas Fuelled Vehicles (GFV) Family | EC support. JPN to check |
| 6.3.9.1. | OBFCM family definition | OBFCM family definition | Paragraph deleted – not needed in UNR |
| Table 1B | Notes 2 and 3 “[engine displacement]” | Notes 2 and 3 “[engine displacement]” | Square brackets deleted |
| 6.7.5. | Durability family | Durability family | Further discussion needed |
| 6.8.2. | N/A | OBD threshold limits | Further discussion needed |
| Table 4B | Notes 2 and 3 “[engine displacement]” | Notes 2 and 3 “[engine displacement]” | Square brackets deleted |
| 6.9.2. | Selective Catalytic Reduction (SCR) family definition | Selective Catalytic Reduction (SCR) family definition | EC support. JPN to check |
| 7.6. | Extensions for durability of pollution control devices (Type 5 test) | Extensions for durability of pollution control devices (Type 5 test) | TBD – along with Durability Family definition |
| 8.1.4.4. | The tests of vehicles for product verification [shall be evenly distributed] over the period of 12 months. | The tests of vehicles for product verification [shall be evenly distributed] over the period of 12 months. … | New text agreed by CoP TF:  The product verifications shall be evenly distributed over the period of 12 months or over the production period in the case that this is less than 12 months. ... |
| 8.1.6. | … with a minimum frequency of [one audit per 12 months]. | … with a minimum frequency of [one audit per 12 months]. | TBD  “… minimum of 5 years, up to a maximum of 10 years.”? |
| 8.1.8. | The responsible authority shall report the results of all audit checks and physical tests performed on verifying conformity of the manufacturers [and file it for a period of a minimum of 10 years]. … | The responsible authority shall report the results of all audit checks and physical tests performed on verifying conformity of the manufacturers [and file it for a period of a minimum of 10 years]. … | New text needed. We should include a minimum period.  “… minimum of 5 years, up to a maximum of 10 years.”?  TBD |
| 8.2.6. | … For the WLTC driven for vehicle warm up as described in paragraph 7.3.4. of Annex B4, in place of the 1 second allowance specified in paragraph 2.6.8.3.1.(i) a [5 second] allowance shall apply. | … For the WLTC driven for vehicle warm up as described in paragraph 7.3.4. of Annex B4, in place of the 1 second allowance specified in paragraph 2.6.8.3.1.(i) a [5 second] allowance shall apply. | Square brackets deleted  “5 second” agreed at CoP TF 19-Nov-2019 |
| 11. | Special Provisions | Special Provisions | TBD |
| 12. | Transitional Provisions – para 12.1. and 12.2. (Level 1A only) | Transitional Provisions – para 12.1. | Transitional provisions for Type 4 test to be added to L1A – based on EU WLTP |
| Appendix 3. Para 1.2. | The test vehicle shall be configured as vehicle H within the CoP family.  [If the CoP family has multiple interpolation families, the test vehicle shall be configured as vehicle H of the interpolation family with the highest expected production volume within the CoP family. At the request of the manufacturer, and with approval of the responsible authority a different test vehicle may be selected. ] | The test vehicle shall be configured as vehicle H within the CoP family.  [If the CoP family has multiple interpolation families, the test vehicle shall be configured as vehicle H of the interpolation family with the highest expected production volume within the CoP family. At the request of the manufacturer, and with approval of the responsible authority a different test vehicle may be selected. ] | 19-11-2019: Japan will provide their feedback shortly after 4th December JAMA meeting |
| Appendix 3. Para 1.5.1. | … [For the tests before the mileage accumulation, at the option of the manufacturer it is allowed to set the dynamometer directly after each test.] | … [For the tests before the mileage accumulation, at the option of the manufacturer it is allowed to set the dynamometer directly after each test.] | 19-11-2019: Unclear what the intention was for this text proposal. VW will check internally and come back with an explanation. |
| Appendix 3. Para 1.9. | [Based on the deviation of the measurements from the fit, the slope CRI should be corrected downward with the standard deviation of the errors in the fit:    where:  MCO2,i-fit is the result of the applying the equation for each of the distances Di.  The slope CRI shall be corrected for the uncertainty in the fit by:  CRI 🡪 CRI - sfit] | [Based on the deviation of the measurements from the fit, the slope CRI should be corrected downward with the standard deviation of the errors in the fit:    where:  MCO2,i-fit is the result of the applying the equation for each of the distances Di.  The slope CRI shall be corrected for the uncertainty in the fit by:  CRI 🡪 CRI - sfit] | 19-11-2019: Scrutiny reservation, Annette and Olle to review and if necessary make a counter-proposal |
| Appendix 3. Para 1.11. | N/A | For the determination of the run-in factor for all applicable criteria emissions, the coefficients CRI,c and Cconst, c shall be calculated … | 19-11-2019: It was agreed to keep the run-in factors for pollutants, and that they should follow a linear scale rather than a logarithmic one. This latest change was already reflected in this text, so that needs no further change.  RG: square brackets therefore now deleted |
| Appendix 3. Para 1.12. | N/A | The run-in factor RIC(j) for criteria emission component C of CoP test vehicle j shall be determined by … | Based on comments above the square brackets have also been deleted for paragraph 1.12. |
| Appendix 5 Para 4.2. | [on a vehicle representative of the OBFCM family] | [on a vehicle representative of the OBFCM family] | Text in square brackets deleted. OBFCM family will not be included in UNR |
| Appendix 5 Para 4.2.1. | [on the vehicle representative of the OBFCM family] | [on the vehicle representative of the OBFCM family] | Text in square brackets deleted. OBFCM family will not be included in UNR |
| Appendix 5 Para 4.2.2. | [an OBFCM family containing only vehicles] tested without using the interpolation method (vehicle H), and six tests for [all other OBFCM families] | [an OBFCM family containing only vehicles] tested without using the interpolation method (vehicle H), and six tests for [all other OBFCM families] | Text in square brackets deleted. OBFCM family will not be included in UNR |
| Appendix 5 Para 4.2.3. | [At the request of the manufacturer and approval of the approval authority, for the values stored according to the definitions described in paragraphs 2.3., 2.4. and 2.5. of this appendix, the manufacturer may take account of effects which contribute to CO2 emissions other than those from combustion of fuel injected into the engine during a Type 1 test. Examples of these effects are injection of SCR reagent, purging of an active charcoal canister, combustion of lubrication oil etc. The manufacturer shall provide the approval authority with an explanation of these adjustments, where applicable.] | [At the request of the manufacturer and approval of the approval authority, for the values stored according to the definitions described in paragraphs 2.3., 2.4. and 2.5. of this appendix, the manufacturer may take account of effects which contribute to CO2 emissions other than those from combustion of fuel injected into the engine during a Type 1 test. Examples of these effects are injection of SCR reagent, purging of an active charcoal canister, combustion of lubrication oil etc. The manufacturer shall provide the approval authority with an explanation of these adjustments, where applicable.] | Deletion of square brackets – to be confirmed |
| Annexes Part A | Multiple [ ] (x 36)  Whole of Annex A2 Appendix 1 (OBD Related Information) in [ ] | Multiple [ ] (x 36)  Whole of Annex A2 Appendix 1 (OBD Related Information) in [ ] | Updates ongoing.  Annex 2 Appendix 1 - deleted |
| Annex B1  Para 3.2.1. | N/A | [A 3-phase Class 2 cycle shall consist of a low phase (Low2), a medium phase (Medium2) and a high phase (High2).] | TBD |
| Annex B1  Para 3.3.1.1. | N/A | [A 3-phase Class 3a cycle shall consist of a low phase (Low3), a medium phase (Medium3a) and a high phase (High3a).] | TBD |
| Annex B1  Para 3.3.2.1. | N/A | [A 3-phase Class 3b cycle shall consist of a low phase (Low3) phase, a medium phase (Medium3b) and a high phase (High3b).] | TBD |
| Annex B3  Table A3/17 | N/A | FAME content. Min 4.5. Max 5.0. | OK. Square brackets deleted. |
| Annex B4 Para 4.2.1.1.2.1. | Minimum deltas | Minimum deltas | Update needed based on proposal from Ichikawa-san |
| Annex B5 Para 2.2.6. | The base inertia of the dynamometer shall be stated by the dynamometer manufacturer and shall be confirmed to within [±1.0 per cent] … | The base inertia of the dynamometer shall be stated by the dynamometer manufacturer and shall be confirmed to within [±1.0 per cent] … | TBD |
| Annex B5 Para 4.1.4.12. | Water (H2O) analysis (if applicable) | Water (H2O) analysis (if applicable) | Square brackets deleted. |
|  |  |  | Already included in GTR15 as 4.1.4.11. – so no need to add a new 4.1.4.13. |
| Annex B6  Table A6/1 | OVC-FCHV rows | OVC-FCHV rows | To be confirmed by EC. Only for L1A if included. |
| Annex B6  Table A6/2 | OVC-FCHV new sub-table for CD test  OVC-FCHV added to NOVC-FCHV sub-table for CS test | OVC-FCHV new sub-table for CD test  OVC-FCHV added to NOVC-FCHV sub-table for CS test | To be confirmed by EC. Only for L1A if included. |
| Annex B6 Para 2.4.2.1.1. | [If the vehicle is equipped with a coasting functionality, this functionality shall be deactivated during chassis dynamometer testing, except for tests where the coasting functionality is required.] | [If the vehicle is equipped with a coasting functionality, this functionality shall be deactivated during chassis dynamometer testing, except for tests where the coasting functionality is required.] | Under discussion. |
| Annex B6 Para 2.4.2.2. | … [If the vehicle is equipped with a coasting functionality, this functionality may be deactivated by the vehicle’s dynamometer operation mode.] | … [If the vehicle is equipped with a coasting functionality, this functionality may be deactivated by the vehicle’s dynamometer operation mode.] | Under discussion. |
| Annex B6 Para 2.4.2.2. | [and/or functionalities] | [and/or functionalities] | Under discussion. |
| Annex B6 Para 2.4.2.3. | [(with the exclusion of the coasting functionality)] | [(with the exclusion of the coasting functionality)] | Under discussion. |
| Figure A6/[xxx] | 2WD / 4WD dyno infographic needs a number | 2WD / 4WD dyno infographic needs a number |  |
| Annex B6 Para 2.6.6.2. and 2.6.6.3. | [If the vehicle has no predominant mode …  … Test results for both modes shall be recorded.] | [If the vehicle has no predominant mode …  … Test results for both modes shall be recorded.] | Square brackets deleted.  EC supports. JPN supports. |
| Annex B6  Appendix 2  Para 1 | In the case that NOVC-HEVs and OVC-HEVs [NOVC-FCHVs, OVC-FCHVs] are tested, Appendices 2 and 3 to Annex B8 shall apply | In the case that NOVC-HEVs and OVC-HEVs [NOVC-FCHVs, OVC-FCHVs] are tested, Appendices 2 and 3 to Annex B8 shall apply | To be confirmed by EC. Only for L1A if included. |
| Annex B6  Appendix 2  Para 3.4.2. | The correction shall be applied if is negative (corresponding to REESS discharging)  At the request of the manufacturer, the correction may be omitted and uncorrected values may be used if:  (a) is positive (corresponding to REESS charging);  (b) the manufacturer can prove to the responsible authority by measurement that there is no relation between and mass emission and and fuel consumption respectively.] | The correction shall be applied if is negative (corresponding to REESS discharging)  At the request of the manufacturer, the correction may be omitted and uncorrected values may be used if:  (a) is positive (corresponding to REESS charging);  (b) the manufacturer can prove to the responsible authority by measurement that there is no relation between and mass emission and and fuel consumption respectively.] | Square brackets deleted.  EC supports. JPN supports. |
| Annex B6a  Para 2.1. | [If the manufacturer can demonstrate that it is ensured that the worst case concept is maintained (e.g. tested vehicle has no insulation), the requirements to document the insulation materials may be waived.] | [If the manufacturer can demonstrate that it is ensured that the worst case concept is maintained (e.g. tested vehicle has no insulation), the requirements to document the insulation materials may be waived.] | Under consideration by Bill C and Elodie C |
| Annex B6b  Para 3.14. | [is CO2 mass emissions of period j (step 1 (for cycle phases) and step 2 (for total cycle)) of Table A7/1 in Annex B7, g/km;] Level 1A only | N/A | TBD |
| Annex B7 Para 3.2.3.2.2.3.2.1. | [The manufacturer shall submit the declared scope of applicable vehicles for the alternative method and the declared scope shall be documented to relevant test reports when evidence of equivalency is shown to the responsible authority. The responsible authority may request the confirmation of equivalency for the alternative method by selecting the vehicle from the scope declared by the manufacturer after equivalency was demonstrated. The result shall fulfil an accuracy for Δ(CD×Af) of ±0.015 m². This procedure shall be based on wind tunnel measurements fulfilling the criteria of this Regulation. If this procedure is not satisfied, the approval of the alternative method is regarded as invalidated.] | [The manufacturer shall submit the declared scope of applicable vehicles for the alternative method and the declared scope shall be documented to relevant test reports when evidence of equivalency is shown to the responsible authority. The responsible authority may request the confirmation of equivalency for the alternative method by selecting the vehicle from the scope declared by the manufacturer after equivalency was demonstrated. The result shall fulfil an accuracy for Δ(CD×Af) of ±0.015 m². This procedure shall be based on wind tunnel measurements fulfilling the criteria of this Regulation. If this procedure is not satisfied, the approval of the alternative method is regarded as invalidated.] | Square brackets deleted.  EC supports. JPN supports. |
| Annex B7 Para 6.14. | Calculation of fuel efficiency (FE) | Calculation of fuel efficiency (FE) | OK. Square brackets deleted. |
| Annex B8 | Multiple instances where OVC-FCHV is added to the list of other EV types or added in paras relating to NOVC-FCHV | Multiple instances where OVC-FCHV is added to the list of other EV types or added in paras relating to NOVC-FCHV | To be confirmed by EC. Only for L1A if included. |
| Annex B8  Table A8/7 | [FE calculation in this table shall be for the complete cycle only] | [For results after 4-phases all the calculations in this table shall be for the complete cycle]  [For the 3-phase WLTP all the calculations in this table shall be for the 3-phase cycle and also for individual phases;] [FE calculation in this table shall be for the complete cycle only] | TBD |
| Annex B8  Table A8/7 | Step 5 – Interpolation family result | Step 5 – Interpolation family result | TBD |
| Annex B8  Table A8/7 | Step 6 - Result of an individual vehicle | Step 6 - Result of an individual vehicle | TBD |
| Annex B8  Para 4.2.3. | … The utility factor-weighted fuel consumption for OVC-FCHVs from the charge-depleting and charge-sustaining Type 1 test shall be calculated using the following equation … | … The utility factor-weighted fuel consumption for OVC-FCHVs from the charge-depleting and charge-sustaining Type 1 test shall be calculated using the following equation … | TBD |
| Annex B8  Para 4.2.3. | Equivalent all-electric range for OVC-FCHVs | Equivalent all-electric range for OVC-FCHVs | TBD |
| Annex B8  Para 4.5.1. | Interpolation of individual vehicle values  New structure, additional text and additional figures | Interpolation of individual vehicle values  New structure, additional text and additional figures | Addition of Interpolation for PEVs to be removed.  Keep restructured paragraph numbers to allow for later introduction of PEV |
| Annex B8  Para 4.5.5.1.3. | Individual charge-sustaining fuel consumption for OVC-FCHVs and NOVC-FCHVs | Individual charge-sustaining fuel consumption for OVC-FCHVs and NOVC-FCHVs | TBD |
| Annex B8  Para 4.5.5.1.4. | This paragraph is only applicable for Level 1B: Individual charge-sustaining fuel efficiency for OVC-FCHVs and NOVC-FCHVs | This paragraph is only applicable for the 3-phase WLTP:  Individual charge-sustaining fuel efficiency for OVC-FCHVs and NOVC-FCHVs | TBD |
| Annex B8  Para 4.6.3. | Stepwise procedure for calculating the final test results of OVC-FCHVs | Stepwise procedure for calculating the final test results of OVC-FCHVs | TBD |
| Annex B8  Table A8/Y | Calculation of final charge-depleting and charge-sustaining weighted values | Calculation of final charge-depleting and charge-sustaining weighted values | To be confirmed by EC. Only for L1A if included. |
| Annex B8  Table A8/Y | [Note: Final test result if Interpolation family result is not accepted when this table is finalised] | [Note: Final test result if Interpolation family result is not accepted when this table is finalised] |  |
| Annex B8  Appendices 1 - 6 | Multiple new references to OVC-FCHVs | Multiple new references to OVC-FCHVs | To be confirmed by EC. Only for L1A if included. |
| Annex C4  Appendix 3b  Table C4/App3b.1 | \*\* for vehicles having [engine displacement] …  Level 1B only | N/A | Square brackets to be deleted |
| Annex C4  Appendix 4  Para 2 | For OVC-HEVs:  It is allowed to charge the electrical energy/power storage device twice a day during mileage accumulation. … | For OVC-HEVs:  It is allowed to charge the electrical energy/power storage device twice a day during mileage accumulation. … | JPN do not support  TBD |
| Annex C5  Para 4.6. | [At the request of the manufacturer, a vehicle with an OBD system may be accepted for type-approval with regard to emissions, even though the system contains one or more deficiencies such that the specific requirements of this annex are not fully met, provided that the specific administrative provisions set out in section paragraph 3 of this annex are complied with.  The Type Approval Authority shall notify its decision in granting a deficiency request to all other Contracting Parties to the 1958 Agreement applying this Regulation.] | [At the request of the manufacturer, a vehicle with an OBD system may be accepted for type-approval with regard to emissions, even though the system contains one or more deficiencies such that the specific requirements of this annex are not fully met, provided that the specific administrative provisions set out in section paragraph 3 of this annex are complied with.  The Type Approval Authority shall notify its decision in granting a deficiency request to all other Contracting Parties to the 1958 Agreement applying this Regulation.] | TBD |
| Annex C5  Appendix 1  Para 6.2.2. | [At the request of the manufacturer with approval by Type Approval Authority, alternative preconditioning methods may be used.] | [At the request of the manufacturer with approval by Type Approval Authority, alternative preconditioning methods may be used.] | L1A and L2 only.  Further discussion need? |
| Annex C5  Appendix 1  Paras 7.1.7., 7.8.8. and 7.1.9. | In-service conformity related text in ~~strikethrough~~ | In-service conformity related text in ~~strikethrough~~ | Deletion of strikethrough text accepted |