**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.

| **Section** | **00 series** | **01 series** |
| --- | --- | --- |
| 3.01 | Vehicle type definition for L1B | Vehicle type definition |
| 3.03. | Placeholder for Level 1B definition for engine displacement | Placeholder for definition for engine displacement |
| 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. |
| 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. |
| 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.] |
| 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.] |
| 6.2.6. | Unique identifier | Unique identifier |
| 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~~;] |
| 6.3.6. | Gas Fuelled Vehicles (GFV) Family | Gas Fuelled Vehicles (GFV) Family |
| 6.3.9.1. | OBFCM family definition | OBFCM family definition |
| Table 1B | Notes 2 and 3 “[engine displacement]” | Notes 2 and 3 “[engine displacement]” |
| 6.7.5. | Durability family | Durability family |
| 6.8.2. | N/A | OBD threshold limits |
| Table 4B | Notes 2 and 3 “[engine displacement]” | Notes 2 and 3 “[engine displacement]” |
| 6.9.2. | Selective Catalytic Reduction (SCR) family definition | Selective Catalytic Reduction (SCR) family definition |
| 7.6. | Extensions for durability of pollution control devices (Type 5 test) | Extensions for durability of pollution control devices (Type 5 test) |
| 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. … |
| 8.1.6. | … with a minimum frequency of [one audit per 12 months]. | … with a minimum frequency of [one audit per 12 months]. |
| 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]. … |
| 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. |
| 11. | Special Provisions | Special Provisions |
| 12. | Transitional Provisions – para 12.1. and 12.2. (Level 1A only) | Transitional Provisions – para 12.1. |
| 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. ] |
| 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.] |
| 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: $σ\_{fit}= \sqrt{\frac{\sum\_{}^{}\left(M\_{CO2,i}-M\_{CO2,i-fit}\right)^{2}}{N-2}}$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: $σ\_{fit}= \sqrt{\frac{\sum\_{}^{}\left(M\_{CO2,i}-M\_{CO2,i-fit}\right)^{2}}{N-2}}$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] |
| 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 … |
| 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 … |
| Appendix 5 Para 4.2. | [on a vehicle representative of the OBFCM family] | [on a vehicle representative of the OBFCM family] |
| Appendix 5 Para 4.2.1. | [on the vehicle representative of the OBFCM family] | [on the vehicle representative of the OBFCM family] |
| 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] |
| 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.] |
| 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 [ ] |
| Annex B1Para 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).] |
| Annex B1Para 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).] |
| Annex B1Para 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).] |
| Annex B3Table A3/17 | N/A | FAME content. Min 4.5. Max 5.0. |
| Annex B4 Para 4.2.1.1.2.1. | Minimum deltas | Minimum deltas |
| 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] … |
| Annex B5 Para 4.1.4.12. | Water (H2O) analysis (if applicable) | Water (H2O) analysis (if applicable) |
| Annex B5 Para 4.1.4.13. | Hydrogen (H2) analysis (if applicable) | Hydrogen (H2) analysis (if applicable) |
| Annex B6Table A6/1 | OVC-FCHV rows | OVC-FCHV rows |
| Annex B6Table A6/2 | OVC-FCHV new sub-table for CD testOVC-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 |
| 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.] |
| 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.] |
| Annex B6 Para 2.4.2.2. | [and/or functionalities] | [and/or functionalities] |
| Annex B6 Para 2.4.2.3. | [(with the exclusion of the coasting functionality)] | [(with the exclusion of the coasting functionality)] |
| 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.] |
| Annex B6Appendix 2Para 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 |
| Annex B6Appendix 2Para 3.4.2. | The correction shall be applied if $∆E\_{REESS}$ 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) $ΔE\_{REESS}$ is positive (corresponding to REESS charging);(b) the manufacturer can prove to the responsible authority by measurement that there is no relation between $∆E\_{REESS}$ and $CO\_{2}$ mass emission and $∆E\_{REESS}$ and fuel consumption respectively.] | The correction shall be applied if $∆E\_{REESS}$ 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) $ΔE\_{REESS}$ is positive (corresponding to REESS charging);(b) the manufacturer can prove to the responsible authority by measurement that there is no relation between $∆E\_{REESS}$ and $CO\_{2}$ mass emission and $∆E\_{REESS}$ and fuel consumption respectively.] |
| Annex B6aPara 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.] |
| Annex B6bPara 3.14. | $M\_{CO2,j,1}$ [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 |
| 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.] |
| Annex B7 Para 6.14. | Calculation of fuel efficiency (FE) | Calculation of fuel efficiency (FE) |
| 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 |
| Annex B8Table 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] |
| Annex B8Table A8/7 | Step 5 – Interpolation family result | Step 5 – Interpolation family result |
| Annex B8Table A8/7 | Step 6 - Result of an individual vehicle | Step 6 - Result of an individual vehicle |
| 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 … |
| Annex B8Para 4.2.3. | Equivalent all-electric range for OVC-FCHVs | Equivalent all-electric range for OVC-FCHVs |
| Annex B8Para 4.5.1. | Interpolation of individual vehicle valuesNew structure, additional text and additional figures | Interpolation of individual vehicle valuesNew structure, additional text and additional figures |
| Annex B8Para 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 |
| Annex B8Para 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 |
| Annex B8Para 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 |
| Annex B8Table A8/Y | Calculation of final charge-depleting and charge-sustaining weighted values | Calculation of final charge-depleting and charge-sustaining weighted values |
| Annex B8Table 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 B8Appendices 1 - 6 | Multiple new references to OVC-FCHVs | Multiple new references to OVC-FCHVs |
| Annex C4Appendix 3bTable C4/App3b.1 | \*\* for vehicles having [engine displacement] …Level 1B only | N/A |
| Annex C4Appendix 4Para 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. … |
| Annex C5Para 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.] |
| Annex C5Appendix 1Para 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.] |
| Annex C5Appendix 1Paras 7.1.7., 7.8.8. and 7.1.9. | In-service conformity related text in ~~strikethrough~~ | In-service conformity related text in ~~strikethrough~~ |