



# **Transposition of GTR15 (WLTP) and GTR19 (Evap) into UN Regulations**

**Update for GRPE from WLTP Transposition Task Force  
June 2020**

# Background

TASK = Transpose GTR15 WLTP and GTR19 EVAP into a new 'UNR WLTP' regulation

- Level 2 to contain most stringent requirements from across all regions
  - Subject to full mutual recognition: TA shall be accepted by all CPs
- Regional levels (Level 1A, 1B etc. ) to contain regional requirements
  - Optional acceptance by other CPs
  - EU and Japan are the two CPs to be represented
- UNR WLTP to be 'accompanied by' a UNR83 08 series that covers all the requirements of UNR83 07 series not covered by new UNR WLTP (e.g. Low temperature test etc.)
  - Original scheme was to introduce at same time as UNR WLTP. It will now be introduced at the same time as UNR RDE, i.e. one GRPE later
  - As and when GTR15 and UNR WLTP add new tests (e.g. Type 6 test) 'UNR 83 08 series' will 'shrink' in content.
  - EU would be a CP to UNR No. 83 and UNR WLTP. Japan would be a CP to just UNR WLTP

# Schematic of proposed transposition route

## UNR 83 08 series

~~Type I test~~

Type II test – modified for  
'WLTP world' \*

Type III test – modified for  
'WLTP world' \*

~~Type IV test~~

~~Type V test – modified for  
'WLTP world' \*~~

Type VI test – modified for  
'WLTP world' \*

~~EBD~~, ISC

+

Shall demonstrate compliance  
with Level 1A of UNR WLTP

## UNR WLTP

Level 2 most stringent –  
including Type 1, Type 4 and  
Type 5 tests

Level 1a  
(Europe) –  
including  
Type 1, 4  
and 5 tests

Level 1b  
(Japan) –  
including  
Type 1, 4  
and 5 tests

\* Where other tests refer to the Type I test (NEDC) it will be necessary to say (where appropriate) that this should be seen to be the WLTP Type 1 test (over a certain transition period in some cases)

## Post-79<sup>th</sup> GRPE Update

- **Intensive activity of the various WLTP IWG Task Forces contributing to the content and drafting of the UNR, in particular those for Conformity of Production, Durability, Sub-Group EV, OBD and the Transposition Task Force**
- **Working Documents submitted for the 80<sup>th</sup> GRPE**
  - 00 series: GRPE-20-03
  - 01 series: GRPE-20-04
- **Further work on various elements of the UNR has required the development of Informal Documents to amend these two Working Documents**
  - These have been submitted to the 80th GRPE
- **Decision taken to postpone UNR83 08 by one GRPE session**
  - The ISC requirements will need to align with UNR RDE

## 4. Overview of UNR WLTP (1)

for more detail, please refer WLTP-29-05e

Contents	main sources	00 series		01 series
		Level 1A	Level 1B	Level 2
1. Scope	GTR15/19 UNR83/101 Japanese Reg.	EU-WLTP	GTR15/19	cover both Level 1A and 1B area
8. Conformity of production (COP)	EU-WLTP Japanese Reg.	EU-WLTP with slight modification	Japanese Reg.	satisfy both Level 1A and 1B requirement
13 Appendix 5. OBFCM	EU-WLTP	EU-WLTP	NA	EU-WLTP
Annexes Part A. Test report /communication and so on	EU-WLTP Japanese Reg.	←	←	←

## 4. Overview of UNR WLTP (2)

Contents	main sources	00 series		01 series
		Level 1A	Level 1B	Level 2
Annexes Part B	GTR15_Amd#5	←	←	←
B3. Reference fuels	GTR15_Amd#5	limited to EU specification	limited to JPN specification	harmonized
B6a. Ambient Temperature Correction for CO2	EU-WLTP	EU-WLTP	NA	EU-WLTP
B6b. Speed and distance correction for CO2	EU-WLTP	EU-WLTP	NA	EU-WLTP
B7/B8. Calculations	GTR15_Amd#5 Japanese Reg.	GTR15_Amend#5	Japanese Reg.	satisfy both Level 1A and 1B requirement
B8. EVs, FCHVs	GTR15_Amd#5	← + OVC-FCHV including interpolation method	GTR15_Amd#5	←

## 4. Overview of UNR WLTP (3)

Contents	main sources	00 series		01 series
		Level 1A	Level 1B	Level 2
C3. Type 4 test - Evaporative emissions	GTR19_Amd#2	←	←	←
C4. Type 5 test – Durability	UNR83 Japanese Reg.	UNR83 with slight modification	Japanese Reg.	UNR83 exclude bench ageing
C4 Appendix4. Special requirements for Hybrid Vehicles	UNR83	←	exclude	exclude
C5. On-Board Diagnostics (OBD)	UNR83 Japanese Reg.	←	←	←
<b>In service conformity</b>	<b>EXCLUDE from UNR-WLTP</b>			
		taken care by UNR83-08	NA	taken care by UNR83-08

## 4. Major Modifications from GTR15

for more detail, please refer WLTP-29-05e\_Appendix01

Contents	Brief Description	Applicable to		
		00 series		01 series
		Level 1A	Level 1B	Level 2
Regional Correction	speed trace and distance correction for ICE only	✓	NA	NA
	ambient temperature correction for CO2	✓	NA	with and without
Post-processing	add fuel efficiency (unit : km/L & km/kg) no utility factor for OVC-HEV	NA	✓	both
OBFCM	the devices for monitoring on board the vehicle the consumption of fuel and/or electric energy	✓	NA	✓
Inclusion of OVC-FCHV	same concept as OVC-HEV test procedure	✓	NA	NA
Adoption of the interpolation method for FCHVs	same concept as other categories (ICE, HEVs and PEVs)	✓	NA	NA



## 4. Major Modifications from GTR19

for more detail, please refer WLTP-29-05e\_Appendix01

Contents	Brief Description	Applicable to		
		00 series		01 series
		Level 1A	Level 1B	Level 2
Scope	modified to "engines fueled with petrol" from "positive ignition engines"	✓	✓	✓
	mono-fuel gas vehicle	NA	✓	✓
Puff loss overflow measurement	sampling start time was modified to "5" from "1" min. to ensure accurate measurement when using SHED method	✓	✓	✓

## Modifications in Informal Documents

- **The Working Documents included several sections/paragraphs in square brackets – these needed to be considered for their inclusion in UNR (or not)**
- **Key changes in the Informal Documents relate to the following topics (inter-alia):**
  - Updates for Conformity of Production for Type 1 and Type 4 tests
  - Updates for Type 5 Durability test
  - Introduction of changes from the Gear Shift Task Force
  - Addition of requirements for fuel efficiency
  - Amendments to the Type 1 test post-processing tables
  - Addition of requirements for OVC-FCHVs (into Level 1A only)
  - Inclusion of revised OBD requirements to align with 'WLTP world'

## Next Steps

- UNR WLTP development group to have a well deserved break from UNR!
- Development of the 08 Series for UNR 83 – alongside the UNR RDE
  - **Working Document for 81<sup>st</sup> GRPE**
- Align GTR15 with UNR WLTP (where appropriate) via a new GTR No. 15 Amendment 6
  - **Working Document for 81<sup>st</sup> GRPE**



Thank you for your attention

**Questions?**

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