Transposition of Euro 6 requirements into UNECE Regulation No. 83 & Proposed amendments to R.101 and R.103

66th GRPE June 2013

Submitted by the expert of the European Commission
Background

• Need to update UNECE Regulations (notably R.83) for « Euro 6 requirements »

• TRL/Ecorys supporting the EC with this task

• Dedicated workshops have been held and invitations have been sent to GRPE members

• Draft of text submitted to 65th GRPE as informal document (GRPE-65-22) – comments were requested

• Workshop held post-65th GRPE to progress the development of the 07 series of amendments

• Formal proposal now being presented to 66th GRPE
  • ECE/TRANS/WP.29/GRPE/2013/11
Scope

• UNECE Regulation No. 83
  • “Uniform provisions concerning the approval of vehicles with regard to the emission of pollutants according to engine fuel requirements”

• EC Regulation No. 715/2007
  • “on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information”

• Implemented by EC Regulation No.:
Regulation 83

- R.83 Revision 4, 06 series of amendments includes up to Euro 5 requirements
- Objective: new series of amendments only covering Euro 6 requirements
- Proposal: include requirements from amending regulation EC No. 459/2012
  - Euro 6 legislation
- Proposal: also include requirements from amending regulation EC No. 630/2012
  - vehicles fuelled by hydrogen and mixtures of hydrogen and natural gas with respect to emissions
Updating R.83: 07 series of amendments


- EC Reg. No. 566/2011 requirements already transposed
  - However some further amendments have been necessary to complete the transposition

- EC Reg. No. 459/2012 and No. 630/2012
  - Requirements to be transposed directly into draft R.83 update

- ‘EC specific’ elements not transposed e.g. access to repair and maintenance information

- STARTING POINT
  - Regulation 83 Revision 4, 06
  - Series of Amendments including amendments adopted at WP.29 in November 2012

- OUTPUT
  - Regulation 83 07 series of amendments for 66th GRPE in June 2013

- Developing new series of amendments

- Editing of current Regulation 83 to correct existing errors (mainly cross-references)

- Implications ‘from’ and ‘to’ associated UNECE regulations (e.g. R.49, R.101, R.103)
Regulation 83

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Transitional provisions

- Euro 6 includes “phase-in” requirements on OBD-monitoring and particulates
- Proposal for R83-07 is to align with Euro 6 and include post 31/12/2013 stages as for EC Euro 6 (see table on next slide)
- R.83-07 replicates the EC transitional provisions in paragraph 12 (see Gantt chart, two slides on)
## EC Euro 6 - “phase in”

<table>
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<th>Character</th>
<th>Emissions standard</th>
<th>OBD standard</th>
<th>Vehicle category and class</th>
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**OBD standards**

T, U and V covered by Interim OBD Threshold Limits (Compression ignition vehicles only)

W, X and Y covered by Preliminary OBD Threshold Limits

ZA, ZB and ZC covered by Final OBD Threshold Limits
### EC Euro 6 - “phase in”

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**Legend**
- **PI, CI Euro 5b, Euro 5+**
- **M, N₁-I**
- **N₁-II/III, N₂**
- **Optional**

**Note:**
- New types
- New vehicles
Main changes to R.83

- Euro 6 emission limits added
- Euro 6 transitional provisions included for OBD threshold limits and particulates
- Requirements for Hydrogen and H2NG fuelled vehicles added
- Amendments to correct existing errors in R.83-06 (mainly in cross-references)
Additional proposed amendment

• Alignment of tyre selection requirement with EC 692/2008.
  • Paragraph 4.1.2. of Appendix 7 to Annex 4a

• Informal document GRPE-66-04
Implications for other UNECE Regulations

- Other UNECE Regulations reviewed to identify implications from updating R.83
- Regulation No. 49 – Emission of pollutants of heavy vehicles.

06 Series of Amendments, Annex 9A

"2.4. Alternative approval

2.4.1. Reserved\(^\text{14}\)

\(^{14}\text{This paragraph has been reserved for future alternative approvals (e.g. transposition of Euro VI into Regulation 83)"}

- Alternative R49 approvals using “Euro 6” Light Duty OBD and NOx control will need to be introduced after adoption of R83-07
Reg. No. 101 - Emissions of carbon dioxide and fuel consumption

- No Euro 6 specific new requirements
- Daytime running lamp requirements added (from EC No. 566/2011)
- Table of test requirements added (from EC No. 630/2012)
- Fuel consumption details amended to include hydrogen and H2NG (from EC No. 630/2012)
- Compressibility factors for gaseous fuels added (from EC No. 630/2012)
- Definitions updated (from EC No. 630/2012)
- Formal proposal for 66th GRPE
  ECE/TRANS/WP.29/GRPE/2013/9
Reg. No. 103 - Replacement of catalytic converters for power-driven vehicles

- No Euro 6 specific new requirements
- Editorial amendments to update cross-references to R.83 (Revision 4)
- Deterioration factors need to be updated (Based on R.83 Revision 4)
- Formal proposal for 66th GRPE
  ECE/TRANS/WP.29/GRPE/2013/10
Timeline

• First draft of R83 07 series of amendments to 65\textsuperscript{th} GRPE, January 2013

• Formal R83-07 document for 66\textsuperscript{th} GRPE in June 2013

• If adopted by 66\textsuperscript{th} GRPE, submitted to WP.29 in November 2013

• Similar timelines for R.101 and R.103
Thank you for your attention

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