Transposition of EURO VI requirements into UN/ECE R49
Status report
GRPE 9-June 2011

Submitted by the expert of European Commission
UN/ECE R49-06 transposition

- Informal document to GRPE January 2011
- Need to update Regulation 49 for « Euro VI requirements »
- Informal document No: GRPE-61-18
- Agreed by GRPE in its January session
UN/ECE R49-06 transposition

- European Commission has contracted TRL/Ecorys to support the Commission in the work
- Dedicated workshops have been held and invitations have been sent to GRPE members
- A first draft of the text has been submitted to GRPE as an informal document
UN/ECE R49-06 transposition

• Reg 49-05 includes up to Euro V requirements (Stage B2)
• Reg 49-05 also include annexes not applicable at the moment
  – Annex 4B (WHDC-gtr)
  – Annex 4C (PN measurement procedure)
  – Annex 9B (OBD-gtr)
  – Annex 9C (IUPR)
  – Annex 10 (OCE-gtr)
UN/ECE R49-06 transposition

- Objective is to make a new consolidated series of amendments only covering «Euro VI requirements»
- Proposal: include the currently not applicable Annexes (4B, 4C, 9B, 9C and 10) and make them applicable
- Proposal: also include requirements from EC regulation No 595/2009 (Euro VI) and corresponding implementing regulation
Updating Regulation 49 - 06 series of amendments

Regulation 49 currently replicates 2005/55/EC as implemented by 2005/78/EC

Process informed by equivalent update to Reg. 83 (Light-Duty Vehicles)

Regulation 49 - 06 Series of Amendments Revision 5 – May 2011

Directive 2007/46/EC

Regulation 595/2009

Draft Implementing Regulation

EC Specific elements removed

Regulation 49 06 Series of Amendments Euro VI specific for 63rd GRPE January 2012

Parallel Activities e.g.

Annex 9B and 9C Update. March 2011

GTR No.5 Update

IRL
<table>
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<tr>
<th>Main body of Regulation</th>
<th>Scope, definitions, application for approval, transitional provisions etc.</th>
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Parallel activities

• If agreed include proposed amendments to R49 Annex 9B and C as proposed by official document: ECE/TRANS/WP.29/GRPE/2011/16 and informal GRPE-62-09

• If agreed and time aligned introduce GFV-Dual Fuel requirements as developed by the GFV informal group

• include latest adopted amendments from EC Regulation No 595/2009 (Euro VI) and corresponding implementing regulation

• Alternative approvals using ”Euro 6” LD OBD and NOx control will be introduced after introduction in Regulation 83
Scope

• Regulation No. 49
  – …”compression-ignition engines for use in vehicles, and the emission of gaseous pollutants from positive-ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles”

• Euro VI Reg (EC) No 595/2009
  – … ”on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) ”
  – Euro VI covers all C.I. and all P.I. engines (petrol and E85)

• Proposal to transpose complete Euro VI scope into R49-06 series and aligning with scope of R83
# Euro VI-”phase in requirements”

<table>
<thead>
<tr>
<th>Character</th>
<th>NO\textsubscript{x} OTL\textsuperscript{(1)}</th>
<th>PM OTL\textsuperscript{(2)}</th>
<th>Reagent quality and consumption</th>
<th>Implementation dates: new types</th>
<th>Implementation dates: all vehicles</th>
<th>Last date of registration</th>
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<tr>
<td>C</td>
<td>Row &quot;general requirements&quot; of tables 1 and 2</td>
<td>Row &quot;general requirements&quot; of table 1</td>
<td>General\textsuperscript{(5)}</td>
<td>31.12.2015</td>
<td>31.12.2016</td>
<td></td>
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Key:
\textsuperscript{(1)} ‘\textsubscript{NO}\textsubscript{x} OTL’ monitoring requirements as set out in table 1 and 2 of Annex X.
\textsuperscript{(2)} ‘PM OTL’ monitoring requirements as set out in table 1 of Annex X.
\textsuperscript{(3)} ‘Performance monitoring’ requirements as set out in point 2.3.3.3. of Annex X.
\textsuperscript{(4)} Reagent quality and consumption ‘phase-in’ requirements as set out in points 7.1.1.1 and 8.4.1.1. of Annex XIII.
\textsuperscript{(5)} Reagent quality and consumption ‘general’ requirements as set out in points 7.1.1. and 8.4.1. of Annex XIII.
Euro VI-”phase in requirements”

- Options on how to transpose Euro VI stages:
  - Transpose all (A, B and C) into R49-06
    - With dates for A only
    - With all dates as in Euro VI
  - Transpose only A now and make supplement or new series at appropriate later date
  - Transpose only C
    - There are uncertainties due to revision clauses in Euro VI
Topics under discussion

• Scope of R49-06 (including P.I. petrol/E85 engines)
• Euro VI “phase in requirements”
• How to implement In-service conformity (ISC) and In-use performance ratio (IUPR) requirements
Timeline

- 61st GRPE January 2011 informal document GRPE-61-18
- 62nd GRPE June 2011 1st draft of Reg 49-06
- 63rd GRPE January 2012 final proposal as formal document
- If adopted by GRPE submitted to WP29 November 2012 for adoption
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