Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations

156th session
Geneva, 13-16 March 2012
Item 4.13.3 of the provisional agenda
1958 Agreement – Consideration of draft Corrigenda
to existing Regulations submitted by the secretariat

Proposal for Corrigendum 1 to Revision 5 of
Regulation No. 49 (Emissions of C.I. and P.I. (LPG and
CNG) engines)*

Note by the secretariat

The text reproduced below has been prepared to correct Revision 5 of the
Regulation, concerning several errors in references and a typing mistakes. It is submitted to
the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the
Administrative Committee (AC.1) for consideration.

* This document was submitted late due to delayed inputs from other sources.

1 In accordance with the programme of work of the Inland Transport Committee for 2010–2014
(ECE/TRANS/208, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), the World Forum
will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The
present document is submitted in conformity with that mandate.
Paragraph 2.1.65., correct to read:
"2.1.65. "Unladen ... driver of 75 kg, passengers or load, ..."

Annex 2A, Appendix, first paragraph, correct to read:
"As noted in Appendix 4 Appendix 5 to Annex 1 ..."

Annex 4A, Appendix 2., paragraph 3.8.2.2., correct to read:
"3.8.2.2. Raw exhaust measurement
...
For calculation ... Therefore, the response time of the exhaust gas mass flow system and each gaseous emissions analyzer and of the exhaust gas mass flow system shall be determined ...
"

Annex 4B, paragraph 6.9., correct to read:
"6.9. Specification of the reference fuel
The reference fuel ... for C.I. engines and in Annexes 6 and 7 Annex 5 for CNG and LPG fuelled engines ...
..."

Annex 4B, paragraph 7.4.7., correct to read:
"7.4.7. ...
If auxiliaries/equipment are fitted in accordance with paragraph 6.3.1. and Annex 7 Appendix 7, M_f and M_r are zero.
..."

Annex 4B, paragraph 8.4.1.1., correct to read:
"8.4.1.1. Introduction
... For calculation ... For the determination of the exhaust mass flow rate either one of the methods described in paragraphs 8.4.1.3 to 8.4.1.7. may be used."

Annex 4B, paragraph 8.4.1.2., correct to read:
"8.4.1.2. Response time
... For the purpose of ... either method one of the methods described ...
...
"

Annex 4B, paragraph 8.4.1.5., correct to read:
"8.4.1.5. Tracer measurement method
... \( \rho_e \) is the density of the exhaust gas, kg/m³ (cf. Table 4 Table 5)
...

Annex 4B, paragraph 9.2.1.1., correct to read:
"9.2.1.1. Introduction
A linearity ... Table 6 Table 7 refer to the maximum ...
"
Annex 4B, paragraph 9.3.2.7., correct to read:

"9.3.2.7. Air to fuel measurement

The air to fuel ... in paragraph 8.3.1.6. 8.4.1.6. shall ...
...
"

Annex 4B, paragraph 9.3.8., correct to read:

"9.3.8. Efficiency of the non-methane cutter (NMC)

... of the NMHC emission mass flow rate (see paragraph 8.5.2. 8.6.2.)."

Annex 4B, paragraph 9.4.5.6., correct to read:

"9.4.5.6. Calibration of the flow measurement instrumentation

... requirements of this Regulation. For the flow reference values ...
"

Annex 4B, paragraph 9.4.6.1., correct to read:

"9.4.6.1. System response time

For the control ... (see paragraph 8.3.1.2. 8.4.1.2.) and the partial flow ...
...
"

Annex 4B, paragraph 9.4.6.2., correct to read:

"9.4.6.2. Specifications for differential flow measurement

...

(b) ... For details see paragraph 9.4.6.2. 9.4.6.3.
...
"

Annex 4B, paragraph 9.5.4., correct to read:

"9.5.4. Calibration of the subsonic venturi (SSV)

Calibration of the ... in equation 43 equation 53 (see paragraph 8.5.1.4.)."

Annex 4B, paragraph 9.5.5., correct to read:

"9.5.5. Total system verification

The total accuracy ... paragraph 8.5.2.4. 8.5.2.3. except ...
"

Annex 4B Appendix 6 paragraph A.6.3., correct to read:

"A.6.3. Gaseous emissions (diesel fuel)

...

Step 3: ... the cycle (paragraph 8.4.2.4. 8.4.2.3. of this annex)
...

Step 4: ... Table 5 (paragraph 8.4.2.4. 8.4.2.3. of this annex)
...
"

Annex 4C paragraph 5.1., correct to read:

"5.1. Time alignment

For partial ... to paragraph 1.3.6. 1.3.7. of Appendix 1 to this annex."
Annex 9B, paragraph 4.2.1., correct to read:

"4.2.1. Selection of the monitoring technique

Approval authorities ... (i.e. through either technical ..."

Annex 9B, paragraph 4.5., correct to read:

"4.5. Requirements for malfunction classification

... 

If an MECS ... The malfunction shall then be assigned to the class that takes precedence in the discriminatory display strategy."

Annex 9C, paragraph 7.1., correct to read:

"7.1. ... 

The OBD system ... in Appendix 6 to Annex 9B) for the ...

..."

Annex 10, paragraph 5.1.2., correct to read:

"5.1.2. ... 

(d) Its operation ... tests. The overall affect effect of such an ..."