

# R51.03, Annex 7 “ASEP”

## Technical Comments by ISO

Doug Moore

Convener, ISO TC22&TC43 WG42

# Topics

- GRB Future Work Topic “ASEP”
- Potential Contribution of ISO to the Revision steps
- Examples for technical inconsistencies or unclarities
- Future ISO work in support of GRB

# Future Revision Steps for ASEP work plan discussed within GRB

## GRB Schedule

- 1) **update the text to improve clarity and simplification in short term**
- 2) 2) Missing sound limit values for N1 and Offroad in Annex7 para. 5.3 to be added.
- 3) Series hybrid vehicles are excluded from the ASEP until 30 June 2019; new test methods will be necessary in R51.
- 4) ASEP as a part of type approval (not as a manufacturer declaration)
- 5) More general technical review in cooperation with ISO (Improvement of methods)

## Possible ISO Contribution

- 1) **ISO to support on a short term (by September 2016)**
- 2) Policy decision – not ISO business.
- 3) ISO to support in medium term
- 4) Policy decision – not ISO business.
- 5) ISO to support in medium/long term

# ISO Activities

- As agreed by parent committees, ISO WG42 met in Feb 2016 to consider comments received from ISO members relating to issues of clarification of Annex 7 of ECE R51.03.
- Mr. Louis-Ferdinand Pardo (BNA) is acting Project Leader for this subject.
- WG42 considered comments and has prepared a first draft for WG42 review.
- ASEP project group will work to present a final draft at the WG42 meeting in June (Glasgow, Scotland)
- ISO can then submit this draft as an informal document to GRB for September 2016.

# Examples of Text Considered for Clarification

Annex 7 paragraph	Excerpt of Current Text	Issue
2.5 Target Conditions	<p>The first test point <math>P_1</math> is defined by using an entry speed <math>v_{AA}</math> of 20 km/h. If a stable acceleration condition cannot be achieved, the speed shall be increased in steps of 5 km/h until a stable acceleration is reached.</p> <p>The fourth test point <math>P_4</math> is defined by the maximum vehicle speed at BB' in that gear ratio within the boundary conditions according to paragraph 2.3.</p> <p>The other two test points are defined by the following formula:            Test Point <math>P_j</math>: <math>v_{BB_j} = v_{BB_1} + ((j - 1) / 3) * (v_{BB_4} - v_{BB_1})</math> for <math>j = 2</math> and <math>3</math>            Where:  <math>v_{BB_1}</math> = vehicle speed at BB' of test point <math>P_1</math>  <math>v_{BB_4}</math> = vehicle speed at BB' of test point <math>P_4</math>            Tolerance for <math>v_{BB_j}</math>: <math>\pm 3</math> km/h            For all test points the boundary conditions as specified in paragraph 2.3. shall be met.</p>	Clarify target ranges and tolerance in both speed and RPM for test points P1- P4.
3.1 Determination of Anchor Point	$L_{anchor,k} = L_{woti,Annex\ 3}$ $n_{anchor,k} = n_{BB,woti,Annex\ 3}$ $v_{anchor,k} = v_{BB,woti,Annex\ 3}$	These terms are not defined in R51.03
5.0 Reference Sound Assessment	<p>The sound compliance at this point can either be calculated using the results of paragraph 3.2.2. and the specification below or be evaluated by direct measurement using the gear as specified below.</p>	Clarify which text applicable to calculation vs. test.

# Future ISO work in support of ASEP

- ISO will continue to work on a revised Annex 7 text to address known missing information the text, structure or identified issues of confusion. The work is focus on technical matters.
- All GRB experts are invited to contribute and participate.
- Draft text to be finalized at June ISO WG42 meeting, Glasgow, Scotland.
- An Informal document will be submitted for September 2016 session of GRB

# Thank you

- Questions ?