UN-ECE GFV informal group
Task-Force "OBD for gas fuelled engines"

Status Report to GRPE
15 January 2009
GFV Sept.08 decision

• Launch a dedicated Task-Force to adapt Annex 9B of R49 rev.4 to gas engines;

• Present an informal amending proposal to GRPE (January 2009);

• Have the final amendments approved:
  – By GRPE in June 2009;
  – By WP29 in November 2009.
TF Meetings

• 13 November 2008 phone conference
  – Review of the technical work to be achieved
  – Share of the work

• 03 and 04 December 2008 Brussels meeting
  – Elaboration of the amendments to Annex 9B
  – Editorial modifications to Annex 9B
  – *Draft informal GRPE document 15*

• Participants
  – Chair: André Rijnders (Netherlands)
  – Secretary: Jean-Francois Renaudin (OICA/Volvo)
  – Commission: Petter Asman, José Laguna, Klaus Steininger
  – TNO representative
  – OICA, CLEPA, AECC and NGVA-EU representatives
Amendments considered necessary

• Applicability of Annex 9B (section 1)

• Amendments outside the GFV scope

• Amendments to permit gas fuelled engines
  – Some of them need advice from the Contracting Parties having undersigned Regulation 49
Applicability of Annex 9B

- The TF agreed to limit its contribution to (mono-fuelled) gas engines and not to address dual- or bi-fuelled engines

- The Commission formulates its expectation to further extend Annex 9B to other fuels such as gasoline and ethanol
  - Agreed the lay-out of the modifications introduced for gas fuelled engines will address the Commission needs
  - Note: the Commission may decide to request a further extension of Annex 9B at the January 2009 GRPE

- The simultaneous applicability of Annexes 9A and 9B creates an administrative difficulty
  - The TF recommends to involve GRPE secretariat in solving the issue
  - The TF recommends the Applicability of Annexes 4A and 4B shall be solved at the same time
Amendments outside the scope

• Editorial mistakes in Annex 9B
  – The TF took the initiative to correct editorial mistakes
  – WWH-OBD chairman and secretary will be kept informed in case these errors would also exist in GTR#5

• Concept of performance monitoring
  – The performance monitoring concept like specified in GTR #5 appeared quite difficult to understand.
  – The group recommends some examples be given in a dedicated appendix to Annex 9B to provide clarification and guidance during the certification process.
Proposed amendments

• Adaptation to gas engines of the monitoring requirements as regards
  – Fuel injection systems
  – Oxygen sensors
  – Three-way catalysts
  – EGR flow and turbo boost (pending).

• Adaptation of the temporary disablement requirements to gas engines as regards
  – Low fuel level
  – Refuelling

• A new section is added concerning the selection of the reference fuel in the case of a gas engine
Amendments needing further consideration

• Adaptation to gas engines of the monitoring requirements as regards EGR flow and turbo boost
  – Diesel engines require emission threshold monitoring
  – A scenario requesting performance monitoring instead of threshold monitoring has been considered (for cost-efficiency reasons)
  – Comments from CPs are requested (to be sent to chair and secretary)

• Introduction for gas engines of requirements for monitoring misfiring
  – A scenario requesting monitoring misfire that may cause catalyst damage (e.g. by monitoring a certain percentage of misfiring in a certain period of time) via performance monitoring has been considered
  – Comments from CPs are requested (to be sent to chair and secretary)
Conclusion

• GFV recommendations for adapting Annex 9B of R49 to gas engines are included in informal Document 15.

• Some issues remain to be solved that need further consideration from the Contracting Parties

• Some issues are clearly outside the mandate of GFV

• GRPE guidance is very welcome