

Informal document No. GRPE-58-23
(58th GRPE, 8-12 June 2009,
agenda item 5)

Non Road Mobile Machinery Engines Global Technical Regulation for Approval by GRPE

Draft NRMM gtr 2009/16

Final Report 2009/17

Scope

This regulation applies to the determination of the emissions of pollutants of compression-ignition (C.I.) engines with a maximum power not smaller than 19 kW and not larger than 560 kW to be used:

- (a) in category T vehicles,
- (b) in non-road mobile machinery.

NRMM gtr Main Content

- Harmonised test protocol for non-road mobile machinery engines
- Including representative test cycles
- Specifically the non-road transient cycle developed between 2000 and 2002 by an international task force

Technical and Economic Feasibility Impact of gtr

- Alignment of different national legislations
- Adaptation to technical progress
- Benefit to the environment and efficient use of energy by using a single test protocol for emission control
- Economic advantages to manufacturers of engines and equipment by facing consistent requirements throughout the global market

Background

- 2002 NRMM identified as priority item at WP29
- 2003 Start of NRMM working group
- Study of regulations in place
- Identification of all requirements and differences
- Development of work plan

Background 2

- 2005 Proposal to develop gtr adopted by AC.3
- Development of structure based on WP.29 guidelines and work in other gtrs
- Development of gtr text harmonising elements of reference legislations.
- 2007 Progress report adopted by AC.3
- 2008 Completion of review of gtr text
- 2009.01 Presentation to GRPE as inf. Doc.
- 2009.03 Introduction of gtr and final report as working documents to GRPE

References

- ECE Regulation R 96
- EU Directive 97/68/EC as amended
- US 40 CFR parts 1039 and 1065
- ISO 8178 series and ISO 16183
- GRPE – WHDC gtr
- ECE Regulation R 120

Harmonisation Challenges

- Different concepts and methodologies
- Differences in technical requirements
- Type approval and certification
- Strict legal language and plain language
- Different legislative development

Editorial Committee Meeting 25 to 27 February 2009

- GTR and Final Report:
 - Introduction of editorial corrections
 - Soak time and weighting factor: 2 options resolved
 - Soak time 20 min
 - Weighting factor 90% hot and 10% cold start
 - Dilution air temperature: option remains
 - All experts approve both documents and support submission as working documents
- Finalisation of guidance document

Remaining Option

- US EPA checked the possible extension of the temperature range
- EU industry checked minimum upper temperature with the existing configuration
- Agreement on the lower limit of 20°C, no compromise on the upper limit
- Dilution air temperature of CVS and PFD to be maintained within one of the following ranges:
20<T<52°C or 20<T<30°C

Outcome of 2009.06.10 Meeting

- NRMM WG experts have been informed about the formatting changes to the gtr draft according to WP.29 guidelines
- NRMM WG experts approved the changes introduced by the Editorial Committee
- NRMM WG experts approved the proposed corrigenda to the formal document
- NRMM WG experts support asking GRPE to recommend drafts to AC.3 for consideration and vote

Guidance – Support to NRMM gtr

- The guidance document is intended to contribute to better understanding and to answer the questions which are likely to be asked by users of the gtr. In order to facilitate reading, it includes the legal text with the relevant recommendations, thus forming a readable document on its own.
- Only the text of the gtr itself is legally binding. The guidance document has no legal status

Guidance Document

- The use of the guidance document and its format was adopted by GRPE and by AC.3 (ECE/TRANS/WP.29/2007/43)
- This guidance document will be made available on the WP.29 website as 'Appendix to gtr No. x (NRMM) – Guidance document', as decided by AC.3 in June 2007

Reporting Changes from Informal to Formal Draft gtr

- Elimination of 2 options
- Editorial corrections (Ed. Com.)
- Adaptation to gtr format requirements
- Corrections by GRPE secretariat
- See also informal document N. 12

Corrigenda

- Informal document N. 11 presents the corrigenda of the draft gtr proposal to be introduced after 58th GRPE
- These corrections have been discussed and approved by NRMM WG
- GRPE is asked to approve these changes

NRMM WG chairman and secretary
would like to propose GRPE to
approve the two documents
ECE/TRANS/WP.29/GRPE/2009/16
and
ECE/TRANS/WP.29/GRPE/2009/17
and to recommend the drafts to AC.3
for consideration and vote in the
November 2009 session

Many thanks to all the Experts who contributed actively to the gtr work and to the secretariat of GRPE for the important support