

Minutes of the NRMM WG Meeting

In Genève, in conjunction with the 53rd GRPE meeting,
9th of January, 2007

The chairman of the NRMM working group, Giovanni De Santi, welcomed the participants.

He presented the members of the editorial committee:

G. De Santi EC, Chairman WG NRMM

M. Shikata, Lema Japan

M.K. Chaudhari ARAI, India

C. Jackson, US EPA

S. Shimpi, Cummins, EMA

J. Stein DC, ISO

H.-W. Knuth, Deutz, EUROMOT

A. Stark IVECO, EUROMOT

G. Cornetti, EC

R. Hummel, EC

G. Billi, Secretary NRMM WG.

The minutes of the previous meeting and the draft agenda were reviewed. No remarks were noted, so both documents are approved.

Point 4 of agenda: R. Hummel reported on the progress and work done since the January 52nd GRPE Meeting, including a summary from the Ottawa NRMM informal WG meeting, Sep 2006 and the NRMM editorial meeting in Frankfurt Dec 2006.

Point 6 of the agenda: Presentation of the second level document of the NRMM GTR:

a. Normative references of the gtr

ECE Regulation no. 96 “Uniform provisions concerning the approval of CI engines to be installed in agricultural and forestry tractors with regard to the emissions of pollutants by the engine”.

EU Directive 97/68/EC as amended

US CFR part 1039 and 1065

ISO 8178 series and ISO 16183

GRPE – WHDC ECE/TRANS/WP.29/GRPE/2006/17 27/03/2006

ECE Regulation no. 120 “Uniform provisions concerning the approval of IC engines to be installed in agricultural and forestry tractors and in non-road mobile machinery, with regard to the measurement of the net power, net torque and specific fuel consumption”.

b. The NRMM GTR is based on 2 sources: US EPA Part 1065 and WHDC draft gtr, both including in different degrees and with deviations the ISO standards. The two sources reflect two approaches: type approval and self certification. Both sources have been used in a complementary manner.

c. Progress of the gtr drafting

The first level draft was completed in occasion of the Ottawa meeting. It addressed various applications to supply the WG with a quite general reference platform. In Ottawa, the experts decided to proceed with the second level draft specifically addressed to NRMM diesel engines.

d. Contents of NRMM gtr – Second level draft gtr

Part A. Technical rationale and justification

1. Technical and economic feasibility
2. Anticipated benefits
3. Potential cost effectiveness

Part B. Text of regulation

1. Purpose
2. Scope
3. Definitions, symbols, abbreviations & references
4. General requirements
5. Performance requirements
6. Test conditions
7. Test procedures
 - 7.1. Performing an emission test
 - 7.2. Engine dynamometer specifications
 - 7.3. Dilution procedures (if applicable)
 - 7.*. Sampling procedures
 - 7.*. Measurement instruments
 - 7.*. Calibration and performance checks
 - 7.*. Equipment and instrument validation for test
 - 7.*. Emission calculations
 - 7.*. Engine fluids, test fuels, analytical gases
8. Annexes

A.1. – Duty cycles

A.2. – Generality

A.3. – Durability assessment

A.4. – Carbon flow check

A.5. – Equipment & auxiliaries to determine engine power

Point 7 of the agenda: Presentation of the preliminary / progress report

The preliminary and progress report was presented in detail and afterwards discussed. There were no objections by the experts and it was agreed to present the report to the GRPE meeting.¹

Next meetings

- NRMM WG editorial committee meeting 18 - 20 April, 2007, in Ispra, Italy.

- Geneva NRMM WG half day meeting during 54th GRPE,
During the GRPE week from 5th to 8th of June 2007.

Having completed the agenda, the chairman thanked all the WG members for their participation and closed the meeting.

¹ The 53rd GRPE meeting welcomed and endorsed the report. The report will now be introduced as working document to AC.3 during the June WP.29 meeting.

WG NRMM informal meeting, 9th of January, 2007, 14:30-17:30
53rd GRPE, Geneva
(Chairman: Giovanni De Santi. Secretary: Giorgio Billi)

Agenda

1. Welcome of participants and introductory remarks
2. Presentation of proposed agenda and adoption of agenda
3. Approval of September 2006 Ottawa Minutes
4. Summary of progress and work done since June, 52nd GRPE Meeting, including summary from Ottawa NRMM informal WG meeting and editorial committee meeting in Frankfurt Dec 2006.
5. Information on new developments of NRMM engines legislation and testing
6. Presentation of the second level document of the NRMM GTR
7. Presentation of the preliminary / progress report (foreseen to be presented to the 53rd GRPE)
8. Definition of work for 2007 and upcoming meetings
- Ispra editorial committee meeting 19-20 April 2007 (2 days)
9. Other issues