

Informal document No. **1**
(45th GRPE, 13-17 January 2003,
agenda item 1.3.)

PROPOSAL FOR A CHARTER FOR THE WORKING GROUP
ON A NEW TEST PROTOCOL FOR EXHAUST EMISSIONS
FROM NON-ROAD MOBILE MACHINERY

Transmitted by the Expert from EU¹

At the 44th meeting of the GRPE, the Chairman reported that WP 29 had asked GRPE to develop a proposal for the protocol for transient testing of pollutant emissions from non-road mobile machinery primarily focused on PM (including the test cycle) as a priority issue under the 1998 Agreement. After consultations between US, EU and Japanese experts it was decided to ask the Commission to take the lead on this task through DG JRC and to report back at the 45 GRPE meeting in January 2003.

DG JRC has accepted to chair an ad-hoc group to develop the protocol including the test cycle. The basis for the work will be the transient test cycle and protocol that has been developed jointly by industry and administrations in the USA, Japan and Europe, starting from separate activities joined in a common effort in September 2000 in Ann Arbor (USA). The results of this work were summarised in the report on NRTC test procedure dated 13 September 2002. Furthermore ISO has recently started an activity to transfer this test protocol into an ISO standard which will be a valuable contribution.

Objective of the proposal

It becomes always more relevant to understand and control the PM emissions from NRMM engines during representative dynamic operation. In order to do so a test protocol including a transient test cycle must be adopted for the evaluation of engines, as it has been done for heavy duty on road vehicles. The U.S. and the European Community are currently investigating the possible use a transient test cycle for the regulations applying to NRMM engines. The European Community, the United States and Japan believe that efforts to develop a harmonized transient test cycle would be beneficial. This proposal addresses the necessary elements to develop a global technical regulation (GTR) for NRMM engines under Article 6.3 of the 1998 Global Agreement.

¹ Giovanni De Santi, DG JRC, 28 November 2002

Proposed Terms of Reference

It is requested that GRPE provide a mandate for a work-group to pursue the development of a globally recognised protocol and test cycle for transient testing of engines intended to be used in non-road mobile machinery.

This will include:

- Representative test cycle for real operational conditions of different non-road machines.
- Protocol for transient testing of non-road mobile machinery engines aimed at the measurement of pollutant emissions primarily focused on PM and taking into account the cost effectiveness of the related laboratory equipment such as the use of:
 - partial flow systems
 - non-electric dyno
 - etc.

A 24 months planning of the work to be performed by the group is given in the Informal Document No. 2. This is a preliminary schedule. The period of 24 month could be reduced to 18 month if work progresses very well.

A fruitful exchange of information will be established with all interested partners, like for example the ISO TC 70/SC8 group.

Progress of the work will be regularly reported to GRPE.

Existing regulations

No legislation is presently enforced, but drafts are under development in the European Community and in the United States.

These activities are largely based upon the following reports:

- G. Cornetti, Rudolf Hummel and Cleophas C. Jackson, “Final report on NRTC test procedure”. 13 September 2002.
- G. Cornetti and Rudolf Hummel, “Steps undertaken in the development of nonroad transient cycle (NRTC) test procedure”. Position paper of the European Commission, Brussels, 23 July 2001.

International Voluntary Standards

No international standard is presently available, but ISO is developing in its Technical Committee 70 / SC 8 a specific standard that will form a part of the series ISO 8178 which is already largely employed for existing exhaust emission legislation.

Proposed Rules of Procedure

- The informal group is open to all participants of GRPE.²
- A Chairman and a Secretary shall govern the informal group.
- The working language of the informal group should be English.
- All documents and/or proposals shall be submitted to the Secretary of the group in a suitable electronic format in advance of the meeting. The group may refuse to discuss any item or proposal which has not been circulated 10 working days in advance.
- An agenda and related documents will be circulated to all members of the informal group in advance of all scheduled meetings.
- All communications of the informal group will be directed to the GRPE heads of delegations.
- The Chairman will lead the discussion so that the conclusions of the informal group can be based on consensus.
- In case voting is necessary the decision shall be taken on a majority vote of governmental members.
- If the informal group could not reach a common agreement, the proposals shall be presented to GRPE, in order to take a decision.
- Results of the work by the informal group will be regularly presented to GRPE.

² Participants of GRPE interested in taking part in the proposed work are encouraged to inform accordingly Giovanni De Santi (Chairman) (giovanni.de-santi@jrc.it) and Giorgio Billi (Secretary) (giorgio.billi@unacoma.it)