

## **PROGRESS REPORT ON GLOBAL TECHNICAL REGULATION (GTR) N° 4 (WHDC)**

The 27<sup>th</sup> WHDC meeting took place from 10 to 12 March 2009 in Budapest. The major purpose of the meeting was to complete the draft gtr to be submitted for the 58<sup>th</sup> GRPE meeting. The participants would like to thank KTI for hosting and organizing the meeting. The details of the meeting are reported in the minutes (document GRPE/WHDC/27).

### Option 2: Reference fuel

The EMA and JRC test programs are delayed. Presentations of the test results are anticipated for the 28<sup>th</sup> WHDC meeting.

The WHDC members agreed to delete the lower FAME content of 4.5% and to only specify the maximum content of 5.5%, but with the option to the Contracting Parties to have tighter requirements within the general specification.

### Option 3: Hot soak period

The following test program on option 3 was agreed with EPA:

Day 1: USFTP cold - 20 minute soak - USFTP hot as baseline testing of the engine to ensure it is 2010 compliant (or very close).

Day 2: WHDC cold - 10 minute soak - WHDC hot - 20 minute soak - WHDC hot - 10 minute soak - WHDC hot - 20 minute soak - etc. for as many cycles as possible in a day with rotating soak lengths.

Day 3: WHDC cold - 20 minute soak - WHDC hot - 20 minute soak - WHDC hot - 10 minute soak - WHDC hot - 20 minute soak - etc. for as many cycles as possible in a day with rotating soak lengths.

Industry (DDC, EMA, Volvo, Daimler) offered testing of US2010 and Euro VI prototype engines, which could be supervised by EPA staff. The tests were anticipated to take place in April/May 2009. Testing at DDC and EMA has been completed, and the test results will be presented at the 28<sup>th</sup> WHDC meeting. Testing at Volvo and Daimler is underway, but test results might not be available at the 58<sup>th</sup> GRPE meeting.

### Option 5: PM filter specification

After the TÜV Nord summary presentation of the test results, the WHDC group finally confirmed deletion of 70 mm filter diameter and allowance of both filter materials.

### Draft gtr

The following major issues were decided at the 27<sup>th</sup> meeting :

- table of contents should show 2 levels;
- introduction of multiple regeneration adjustment factors proposed for ECE R 83 to be checked;
- chapter 6.10 on crankcase gases was accepted;

- mapping of negative torque was added,
- introduction of drift correction was agreed;
- new table 3 with WHSC cycle statistics was added;
- NOx humidity correction factor was retained;
- PM buoyancy correction formula was amended according to Japanese proposal
- specifications of filter cassette will be added;
- Annex 6 (example calculations) will be revised;
- introduction of NDUV analyzer for NOx measurement was accepted.

#### Review of the time line

The next meeting will take place as follows:

- 28<sup>th</sup> WHDC meeting on 09 June 2009, Geneva