



**TWENTY SECOND MEETING OF THE GRPE WORKING GROUP ON THE
WORLDWIDE HEAVY DUTY CERTIFICATION PROCEDURE (WHDC)**

Geneva, 16 January 2008

MINUTES OF THE MEETING

Venue: Palais des Nations, Geneva

Chairman: J.P. LAGUNA-GOMEZ (European Commission)

1.- ADOPTION OF THE AGENDA

The provisional agenda GRPE/WHDC/A22 was adopted as circulated.

2.- APPROVAL OF THE MINUTES OF THE 21st WHDC MEETING
(GRPE/WHDC/21 – San Francisco, 18/19 October 2007)

The minutes of the 21st meeting were approved.

3.- UPDATE FROM 21st WHDC MEETING

Document: Inf. Doc. No. GRPE-55-15

The Chairman informed about the results of the 21st WHDC meeting. The group had successfully started in-depth discussion of the technical elements. He recalled the main task of the group aimed at reducing the number of the remaining options in the gtr. He emphasized the group's intention to finalize the draft gtr for consideration and adoption at the GRPE session in June 2009.

4.- DISCUSSION OF WHDC OPTIONS

Documents: Inf. Doc. No. GRPE-55-15
GRPE/WHDC/FE07
GRPE/WHDC/FE09
GRPE/WHDC/FE10
GRPE/WHDC/FE11

The secretary summarized the agreements reached at the 21st meeting as presented in Inf. Doc. No. GRPE-55-15. Discussion on the various options then took place on this basis.

4.1 Power determination

It was confirmed to delete reference to power regulations from the gtr. The list of auxiliaries to be considered for the emissions test will be added to the gtr. Generally, exclusion of the fan for the emissions test is preferred, provided influence on emissions will be small. Messrs. Schulte and Stein will present an evaluation at the 23rd WHDC meeting.

4.2 Single reference fuel

European Commission DG-JRC will run the reference fuel test program agreed at the last meeting. OICA members will submit engines and test fuels. Availability of engines and fuels are still under investigation, so the final timing of the program could not yet be decided.

While Japan has also prepared budget for contributing to the test program, EMA was not prepared to make a firm commitment, at this time.

The Chairman asked to include B5 fuel into the test program by adding 5% FAME to the reference fuel. OICA agreed that influence of such fuel on emissions should be investigated, and will check B5 availability. In parallel, DG-JRC will explore if they have B5 fuel on stock.

The group agreed to add B5 fuel to the test program. The final test matrix of the whole study (DG-JRC, Japan, EMA) will be decided once engine and fuel availability is known.

4.3 Soak time

At the 21st meeting, EPA had indicated that they will not accept the 10 minutes compromise solution proposed by the Chairman, if this would affect the stringency of the USA 2010 emissions limits. Therefore, the decision on soak time period will be based on emissions stringency level. EPA agreed to inform the WHDC group, if the comparison of US-FTP with 20 minutes soak time vs. WHTC with 10 minutes soak time will satisfy their requirements. Industry and test laboratories will check which minimum soak time periods can be technically realized.

In the absence of the EPA delegation, no further discussion on this topic took place .

EPA was asked to present a proposal for a test program at the 23rd WHDC meeting in April 2008.

4.4 Cold start weighting

This topic was not discussed at the meeting. WHDC members need more time to collect data on real world cold start operation. Available data will be presented at the 23rd WHDC meeting in April 2008.

4.5 PM filter specification

It was agreed that TÜV Nord will conduct the test program on PM filter specification on the basis of the offer detailed in document GRPE/WHDC/FE09. OICA members agreed to fund the program and to supply two test engines (one Euro V engine w/o PM aftertreatment, one engine with DPF). As far as possible, design of the test program will take EPA's comments (document GRPE/WHDC/FE11) into account. Additional investigations within the program will be the determination of NOx measurement accuracy at low levels and the measurement

of particle number according to the PMP protocol. Anticipated start of the program is April 2008. Engine selection will be decided by mid-February.

4.6 Funding

It was agreed that

- DG-JRC will conduct the reference fuel test program (option 2) on their own test cells without the need for external funding; the engines for the program will be offered by OICA; EU and US reference fuels will be offered by OICA; availability of B5 fuel will be checked by OICA and DG-JRC.
- EMA will check the possibility of funding tests on option 2 (reference fuel) with one of the engines used in the CRC-ACES program.
- Japan will fund test program on option 2 (reference fuel); final test program yet to be decided.
- OICA members will fund the PM filter study (option 5) at TÜV Nord and supply the two engines needed for the program; fuel costs are included in TÜV offer.

5.- OTHER WHDC ELEMENTS

Document: Inf. Doc. No. GRPE-55-15

5.1 Gasoline engines

There was broad consensus to extend the scope of the gtr to gasoline engines, although EPA still has reservations. EMA will check with member companies that produce gasoline engines whether the WHDC cycles are appropriate for US manufactured gasoline engines.

Mr. Vaysblyum presented the Russian experience with the application of ECE R 49 to gasoline fuelled commercial vehicles (see document GRPE/WHDC/FE10). Currently, only the ESC cycle applies with the ETC to become mandatory in 2010. Mr. Vaysblyum indicated that a validation study was technically feasible at a Russian test laboratory. Before committing any contribution, he would like to talk to Russian engine manufacturers, and asked the secretary to send a written request for a test program.

The Chinese delegation offered the possibility for conducting a test program with the WHDC test cycles in China. The secretary was asked to contact CATARC, directly.

5.2 Engine family concept

No further discussion.

5.3 Alignment with NRMM gtr

No further discussion.

6.- REVIEW OF WHDC TIME LINE

The timeline was confirmed.

7.- SUMMARY AND CONCLUSIONS

Document: GRPE/WHDC/FE08 (Inf. Doc. No. GRPE-55-26)

The secretary summarized the results of the meeting as follows:

- Reference to power regulations (option 1) will be deleted from the gtr; the list of auxiliaries to be considered for the emissions test will be added to the gtr.
- DG-JRC will run reference fuel test program (option 2); OICA members will submit engines and fuels; test with B5 fuel to be added. Japan will conduct additional test program, details to be decided. EMA will check possibility for contribution.
- Decision on soak time period (option 3) will be based on emissions stringency level. EPA to inform WHDC group about test program expected by them. Industry and test laboratories to check which minimum soak time periods can be realized.
- WHDC members will collect data on cold start weighting (option 4).
- TÜV Nord will conduct test program on PM filter specification (option 5). OICA members will fund this program and supply two engines.
- Broad agreement to extend scope to gasoline engines; China and Russia are asked to run validation program on gasoline engines; EMA/EPA to check US industry position.
- Shimpi/Stein to elaborate differences between NRMM and WHDC gtr's.

The next meetings will take place as follows:

- 23rd WHDC meeting on 10th and 11th April 2008 at JASIC offices, Tokyo, Japan
- 24th WHDC meeting on 03rd June 2008, Geneva

8.- OTHER BUSINESS

None.
