Transmitted by the Representative of the United States of America

Informal document No. **WP.29-149-12**
(149th WP.29, 10-13 November 2009, agenda item 14.3)

US Statement Concerning Soak Period and Cold Start Weighting Options in the World Harmonized Heavy Duty Cycle gtr No 4 (WHDC gtr)

As noted in paragraphs 11 through 14 of WP29/2009/122, two of the five options on which WP29 expected resolution by the WHDC working group remain open. The hot soak period option remains as a 5 or a 20 minute soak while the cold start weighting factor option remains as either 14 percent or 10 percent.

Background on resolution of these options

During the past two years, the WHDC working group within GRPE has looked into a 10 minute hot soak period possibly replacing the 5 or 20 minute option. Discussions within the group progressed to a debate between 10 minute and 20 minute soak periods with the United States leaning toward the 20 minute period given presence of a 20 minute soak period in US test procedures and, therefore, protection against possible backsliding of regulatory stringency. A number of parties put forward a recommendation of a 10 minute soak period to replace the current option of 5 or 20 minutes. The 5 minute soak option was considered undesirable by many parties as too short and likely to cause an unacceptable frequency of voided tests.

In an effort to resolve the issue and ensure that important decisions at GRPE are based on data-driven analysis wherever possible, the US proposed a test program to shed light on the issue of stringency by comparing emission results using a 10 minute versus a 20 minute soak period. Three entities stepped forward to generate test data according to this test program: the Engine Manufacturers Association (EMA); Daimler AG; and, Detroit Diesel Corporation (DDC). These data, in part, were presented by the WHDC Chair and Secretary to GRPE at its June 2009 meeting, with more data made available to working group members on 31 July 2009. Since that time, the US has been analyzing the data and generating an internal position on how to proceed. Due to the timing of the test program data availability, and the importance of the issue to the United States, resolution of the option was not possible within the time required for submitting new text to the WP29 Secretariat for consideration at this 149th meeting of WP29. Hence, the gtr as it currently is written contains an option of a 5 or 20 minute soak period (i.e., a 10 minute soak does not appear in the current gtr).

US position

The United States is prepared to eliminate the soak period and cold start weighting factor options consistent with its understanding of the discussions within the WHDC working group. Specifically, the United States will support a 10 minute soak period in conjunction with a 14 percent cold start weighting factor.

Other comments and considerations

The United States wishes to thank the WHDC working group and GRPE for its hard work on this gtr and, specifically, EMA, Daimler, and DDC for stepping forward to generate test data. The United States firmly believes that decisions at GRPE should be data-driven and made based on the best available scientific information.

In addition, the United States also would like to clarify that a formal rulemaking process must still be conducted within the US prior to adopting the WHDC gtr. During that rulemaking process, we anticipate needing additional data to shed light on the relative stringency of the WHDC gtr relative to existing US test procedures. The outcome of that process cannot be known today. We trust that industry will be supportive of that need and will work with us again when the time arises.

Comments specific to WP29/2009/121 (the WHDC gtr)

Suggested changes to paragraph 7.6.3

7.6.3. Hot soak period

Immediately upon completion of the cold start test, the engine shall be conditioned for the hot start test using a 10 ± 1 minutes hot soak period. ~~by using one of the following options:~~

~~(a) 5 ± 1 minutes hot soak period~~

~~(b) 20 ± 1 minutes hot soak period~~

~~The option shall be selected by the Contracting Parties.~~

Suggested changes to paragraph 8.6.3

8.6.3. Calculation of the specific emissions

[Text surrounding equation 69 left as is.]

For the WHTC, the final test result shall be a weighted average from cold start test and hot start test according to the following formula: ~~by using either of the following options:~~

[Renumber current equation "70a" to "70" and eliminate equation "70b"]

~~The option shall be selected by the Contracting Parties.~~
