PMP Webconference
15th July 2021, 13:00-15:00 CET
DRAFT MEETING MINUTES

1. Introduction & Update on GRPE June '21 (Barouch GIECHASKIEL)
   opened meeting and summarized)
   a. ToR (adopted)
   b. Request for GTR on brakes
   c. HD sub23 and tailpipe sampling
   d. RDE – PN PEMS sub23

   100 participants participating in this WEB conference. Future timing of PMP meetings continue at ca 13:00-15:00 to accommodate all time zones.
   There is a request from GRPE to appoint a vice chair from the contracting parties. Proposals can be sent to BG.
   Sub 23nm protocol is closed. HD Tailpipe dilution topic is open and awaiting data. PN PEMS sub-23 nm document was completed in June 21 and sent to the RDE group.

2. Exhaust emissions (BG reported)
   a. Monitoring emissions / procedures (no update)
   b. Testing on tailpipe sampling (left for September)
   c. Calibration procedures

   Common calibration procedure (PMP and PEMS) is to be done and to be reported.
   New Periodic Technical Inspection (NPTI): JRC will provide a status update status to GRPE.

3. Non-exhaust emissions (Theodoros Grigoratos, JRC)
   a. Submission of TF1 RR Statistics Report (Carlos Agudelo, Link Eng.)
      Statistical report is ready to be submitted. Will be uploaded to UNECE PMP 15072021 meeting folder. CA presented statistics done by Link, JRC, and Ford. 250000 data points evaluated. The document will serve as basis for the statistical analysis in the upcoming interlaboratory study (ILS).

   b. Minimum specifications for ILS testing – (TG, JRC)
      TG introduced to the minimum specification which has been worked on over the last 2 years and re-intensified since March 2021. Report will follow. TG invited PMP members to check the document and come back with feedback and suggestions for improvement. TG summarized the 11x parameters for which the specifications have been developed. Document will be uploaded to PMP-Meeting site (DONE). ILS to be finished by end of 2021.
CA (LINK) will offer WEBINAR to walk through minimum specifications related to reporting issues (i.e. VDA 305/EKB 3008). Webinar will be open to all interested parties doing brake emission measurements.

c. **Update of cooling adjustment method - (TG, JRC)**
   TG presented the updated cooling adjustment method. Different setups have very different cooling air diameters from 85 mm to 356 mm. Found that average temperature is increased by Wheel Load/Disc Mass ratio. Defined 4 WL/DM classes for initial braking temp 55°C to 85°C, final braking temperature 85°C to 140°C, and mean Temp >50 to >65°C. The maximum brake temperature specification was removed.

d. **Interlaboratory Study (TG, JRC)**
   17 labs confirmed their participation. Need to be checked if all specs are fulfilled.
   Two differed brake systems will be tested by all labs: Ford Focus brakes WL/DM= ca. 88; Audi Brake WL/DM= ca 45. Additional options for participating labs include a Drum brake (Stellantis) and a 3.5t N2 vehicle brake. Labs will also test alternative bedding procedures. End of July testing schedule will be finalized. Brake parts to be distributed in August 2021 by the OEMs. All results shall be available by end of the year 2021. No data will be accepted after Dec 2021, because of the deadline for GTR drafting spring 2022.

e. **PMP procedure & regenerative braking – a contribution to TF4 (Marcel Mathissen, OICA/Ford)**
   MM presented OICA ideas to simplify and progress with defining a procedure to include regenerative braking. CA noted that SAE Group was kicked off: "Brake Dynamometer Squeal Noise Task Force" within the "SAE Brake NVH Standards Committee" CA chairing. There could be valuable synergies.
   TG and Jarek Grochowicz will co-chair the TF4. Both will align and invite for a meeting in beginning of September 2021. It is expected that during weekly WEB meetings the topic can be effectively progressed.

4. Any other Business

The formal process for a GTR is the submission to GRPE as a working document (spring 2022). Next is translation for GRPE in June 22.
Revisions may be submitted before GRPE June 2022. If adopted by GRPE the GTR goes to GRPE in Nov 2022. Rainer Vogt (Tech. Secretary) raised the question when and how to include procedure developed by TF-4. It will be very ambitious to complete all – including testing – by spring 2022. TG: an option could be to include generic requirements and fill / revision parameters later, or submit an annex. Bill Coleman commented that usually the first step for a GTR is to submit an informal document. BG/TG commented that with these deadlines there is no time to prepare an informal document for the Nov 2021 GRPE session. BC suggested that the generic text could be drafted now. BG/TG/and technical secretary will align how to deal with it.

Next PMP Meeting (end of September/ beginning of October) will focus on exhaust. Documents need to be ready by October 2021 for next GRPE meeting. A table with documents and deadlines for the GTR on brakes will be prepared for September 21 PMP meeting.