

CEC ACTIVITY REPORT JULY – DECEMBER 2020

1. Chairman's Introduction

2020 has shown us how capable we are to continue making progress despite the difficulties and challenges. I want to thank all contributors to CEC for your continued engagement and commitment to the development and maintenance of our test methods.

Near the end of 2020, a new challenge was thrown our way with the unexpected resignation of our chair. Here again I wish to thank my colleagues on the Management Board for their commitment to maintain the focus on our key priorities whilst the identification of the next chair progresses. Inevitable however we have had to prioritise our projects and therefore progress on some will be slower than hoped. However, we intend to ensure that the highest priority projects continue without serious changes to the deadlines.

One new project we have added to that list of priorities is a strategic review of CEC and in particular the purpose and goals of CEC. To this end, we are initiating 5 new work streams including most importantly potential new funding models for CEC and the future scope of CEC. We will of course keep you updated on progress; our self-imposed deadline for this review is mid-2021.

Beyond the new strategic review, we have continued to make good progress on the new strategic items for 2020, the development of the new CEC website has progressed with a basic model site up and running for testing; we are still targeting a "go live" later this year after full testing has been completed. The work on updating the CEC guidelines, which is the main working document for CEC activities, has continued but will need to be temporarily put on hold – positive feedback has been received on the current draft from selected working group chairs. Ideally, we still hope that the new guidelines will be launched later this year.

Our lubricant TDG's continue to deliver, after the move to SG for L-114 (Toyota turbo deposits) and L-107 (M271EVO sludge) earlier in 2020 we have just approved SG status for L-117 (VW Piston Cleanliness). ACEA members in conjunction with our SG's have been able to ensure ongoing availability for various tests such as L-054 (L111FE) until at least 2025, L-099 and L-104 (OM646 + Bio) until 2022 and finally L-106 and L-111 (PSA DV6 and EP6) also until 2022. Of the two remaining TDG's, L-115 and L-116 the latter (low soot ring and liner wear) continues to progress in line with expectations and the timeline remains realistic, however the low soot bearing wear test has been put on hold pending a revised Terms of Reference.

On the fuels side F-113 (direct injection injector fouling) has made good progress and will soon propose the completion of phase 1 work allowing the group to start phase 2. Meanwhile the F110 (injector deposits) working group members continue work on returning the method to SG status with cautious optimism. All members associations have validated the needs statement for a replacement of the F-098 (injector nozzle coking) method and ACEA will look for an OEM sponsor. Finally CEN TC19/WG21 continue their work to propose a new test method looking at corrosion protection and will propose new Terms of Reference to CEC if an engine test is viewed as the best solution.

2. List of Board Members and Responsibilities

2.1. List of Board Members

Mike Conroy	CONCAWE, Vice-Chair, Chair ad interim
Paul Decker-Brentano	ACEA
Bengt Otterholm	ACEA
Nigel Britton	ATC

Frank Stunnenberg	ATC, Treasurer (to be replaced by Toby as of February 2021)
Toby Stein	ATC, Treasurer (as of February 2021)
Andrew Bailey	ATIEL
Nikolay Doroshenko	ATIEL
Angela Spieckermann	CONCAWE

2.2. Management Board Responsibilities

Issue	Leader	Backup	Admin, Secretariat
General Administration, Finance	Mike (ad interim)/Toby (Finance)	Toby	Kellen
Monitoring Lubricants Groups (SG)	Nikolay (engine)/Andrew (Bench)	Andrew/Nikolay	Kellen
Monitoring Fuels Groups (SG)	Mike	Nigel	Kellen
Monitoring Transmissions (SG)	Toby	Bengt	Kellen
Monitoring Reference Fluids Groups + Rating	Nigel (Lubes)/Mike (Fuels)		Kellen
Articles of Association / Guidelines	Mike (ad interim)	Mike	Kellen
External Communications	Mike (ad interim)	Toby	Kellen
Quality/SDG	Nigel (Lubes)/Mike (Fuels)		Kellen
Lubricant Tests:			
TDG-L-115 – Bearing Wear Test	Bengt	Nigel	Kellen
TDG-L-116 – Ring Liner Wear Test	Nigel	Bengt	Kellen
TDG-L-117	Paul	Andrew	Kellen
Fuel Test Development:			
TDG-F-113 - IDID	Mike	Nigel	Kellen
Confidentiality Issues	Mike (ad interim)	TBC	Kellen
CEC Strategic items	Mike (ad interim)	TBC	Kellen

3. Update on TDG's - Activity report – timeframe July – December 2020

3.1. TDG-F-113 – DISI test

The test is currently installed and running at 9 labs and further labs are installing. All tests are run according to the latest version of the test procedure with unique batch of validation fuels (Clean-Up/Dirty-Up). This is supposed to be completed by the end January 2021.

The SDG presented an Intermediate review of available RR data in December. The review showed that repeatability is acceptable and reproducibility has significantly improved (when compared with Q2 Pilot RR), but remains below precision target.

After reviewing Phase 1 deliverables, Phase 1 is now complete and ready for submission to the CEC Management Board for endorsement.

3.2. TDG-L-115 – Low Soot Bearing Wear Test

The current status is not as expected. Differentiation between HDO A and LDO A, B, C or D is not sufficiently good. Ageing appears to worsen performance on HDO A but leave the LDO's more or less unaffected.

All oils were tested with more severe but not "field like" conditions. LDO B (2.9 HTHS) singled out as much worse and HDO A appears slightly worse than the other LDO's.

It has not been possible to demonstrate additive effects, even when using an oil w/o performance additives. Test appears to be sensitive to viscosity but this contradicts initial targets and with the unrealistic test conditions, this is not a good way forward.

As next steps the group members need to answer the following questions:

- Close the group or continue with adjusted Terms of Reference (ToR)?
- Agree to repeat LDO B/1 with severe conditions to confirm performance difference

For now, the activities were put on hold and the group is waiting for the revised ToR from AAA.

3.3. TDG-L-116 –Low Soot Ring Liner Wear Test

The last conference call will take place on 17 December. The test results are encouraging and the proposed timeline is realistic.

3.4. TDG-L-117 – Light-Duty Diesel Piston Cleanliness Test

The results of Phase 2 were presented to the Management Board during the last meeting on 16 December. There is room for improvement in the test procedure and APL will work with VW to have a more robust procedure.

The Management Board approved the Phase 2 results and to move from TDG to SG status.

4. Update on SG's - Activity report – timeframe July - December 2020

4.1. SG-F-110

- The F-110 remains active and keeps working to bring the test back to SG Status
- The investigation work to evaluate possible cause for variability confirms that the main factors are soak conditions and cold start temperature
- The newly sourced Na Contaminant has been checked upon shelf life and test severity with the following outcome:
 - Proper Solubility requires high shear mixing process and higher dilution rate when compared to former Na solution
 - Shelf life is unchanged – 6 months
 - A validation run has been completed at the same final concentration with no significant change in test severity
- The Group has decided to engage a new RR with a specific protocol:
 - Unique batch of the new Sodium contaminant
 - Soak temperature profile monitoring
 - Tighter cold start temperature control
 - Unlimited number of Cold Start attempts (instead of 5 max) to avoid gap effect on final rating

The next meeting is planned mid-April 2021 to check improvement on variability and – if conclusive - decide about possible return to SG status.

4.2. SG-L-108

Georg Feuchter was appointed as the new group Chair during the SG meeting held on 26 November 2020. Thomas Tobie, the former Chair, will act as Vice chair.

5. Update on TMS

There are 34 different test types defined on the TMS. Of these, 26 are in operation and the other 8 are no longer in use.

5.1. SG-F-110

- DW10C2

The data dictionary for DW10C2 was heavily revised, and a new data upload pro forma uploaded. This went live in November 2020 as DW10C2.

- DW10C

Uploads for the previous version were stopped, but the test data are still visible on the TMS.

5.2. TDG- F-113

DISI_CU and DISI_KC (TDG-F-113) were released in October, chaired by Frederic Lebeau from ISP Grand-Couronne SARL.

The Keep-Clean or Clean-Up pro-forma is available for download from the TMS and you can either allow TMS to determine calculated values or override these by typing the values directly.

5.3. SG-L-114

- KO30 and KO90

We re-generated the lab codes for all labs new and historical, then changed the symbol indexes that decide the shape and colour of the markers when data for those labs are plotted. All instrument ID's were updated in line with the lab code changes. The validation rules were also tightened to remove ability to enter a test date of zero

6. Progress with CEC's New Website

- PDC have been making good progress with the development of CEC's website and member's portal (the TMS). The front-end design is a large upgrade in keeping with the signed-off designs.
- A large variety of documents can now be indexed and searched for a specific word or phrase and the live documents repository is functioning, allowing for collaborative remote working.
- The diary and meeting maker functionality is fully utilised across the site, groups and companies.
- The permissions structure is fully developed, which allows a user to see only the information that they need.
- Single sign-on across both the main site and the TMS enhances security, and each user will need their own login. Temporary users can also be set up.
- Data will be managed to remove inactive users and unnecessary files before the old system migrates to the new.
- Testing has been delayed for the Member's area while the changeover of Chairman is underway. PDC have a meeting with the new Chairman on Friday 15th January to discuss further implementation.
- A migration plan has been drafted ready for implementation.

7. Strategic items

As mentioned in the introduction, we have continued to make good progress on the new strategic items for 2020, the development of the new CEC website has progressed with a basic model site up and running for testing; we are still targeting a "go live" later this year after full testing has been completed. The work on updating the CEC guidelines, which is the main working document for CEC activities, has continued but will need to be temporarily put on hold – positive feedback has been received on the current draft from selected working group chairs. Ideally, we still hope that the new guidelines will be launched later this year.

8. Upcoming events and activity for 2021

- Management Board Meeting on 3 February 2021 via call
- TDG-F-113 meeting on 16 February 2021 via call
- Management Board Meeting on 11 March 2021 via call
- SG-L-106 meeting on 17 March 2021 via call
- SG-L-054, SG-L-099, SG-L-101, SG-L-104, Daimler meetings 24-25 March 2021, at APL Landau or via call
- TDG-F-110 meeting on 15 April 2021 via call
- Management Board Meeting on 28 April 2021 via call
- Management Board Meeting on 23 June 2021 at CEC offices in Brussels, Belgium
- Management Board Meeting on 8 September 2021 at CEC offices in Brussels, Belgium
- SG-F-005 meeting on 22 September 2021 at AC Analytical Controls BV in Rotterdam, The Netherlands or via webex
- SG-F-016 meeting on 22 September 2021 at DTC Vienna or via WebEx
- SG-F-020 meeting on 22 September 2021 at DTC Vienna or via WebEx
- SG-F-023 meeting on 09 November 2021 via call
- SG-F-098 meeting on 10 November 2021 at Haltermann GmbH Location in Hamburg, Germany or via Webex
- Management Board Meeting on 24 November 2021 at CEC offices in Brussels, Belgium

Because of COVID-19 several meetings were postponed to later dates which have not been fixed yet.