



Coordinating European Council for the Development of Performance Tests for Transportation Fuels, Lubricants and Other Fluids.

## CEC ACTIVITY REPORT JANUARY - JUNE 2018

### 1. Chairman's Introduction

The CEC Management Board (MB) hopes this Activity Report will give you a good understanding of our work and the progress we make.

Early May we conducted a review of the CEC secretariat among the Chairs and Vice-Chairs of the CEC Working Groups. Thank you for those of you that submitted a response. Your information is critical in assessing the performance of the secretariat. I am happy to report that the CEC MB has extended the contract with Kellen until end 2020, based on your information from the survey.

Together with the review of the secretariat we also included a review of the CEC Management Board. Again, thank you for your feedback!

More details on the survey – including average scores - can be found in section 3.8.

We realize that our stakeholders are quite diverse and therefore please let us know *what you* think of this Activity Report and please let us know (info@ceteststest.org) how we may further increase the added value for *you personally*. Please note the date of our 2018 CEC Workshop in your calendar: **November 28<sup>th</sup> in Brussels. We look forward to meeting you there!**

### 2. List of Board Members and Responsibilities

#### 2.1. List of Board Members

Frank Stunnenberg	ATC (Chairman)
Mike Conroy	CONCAWE (Vice-Chairman)
Bengt Otterholm	ACEA
Paul Decker-Brentano	ACEA
Adrian Fitzpatrick	ATC
Thomas Buenemann	ATC
Nick Clague	ATIEL
Vincent Panel	ATIEL
Maximilian Staudacher	CONCAWE

#### 2.2. Management Board Responsibilities

Issue	Leader	Backup	Admin, Secretariat
General Administration, Finance	Frank	Mike	Kellen
Monitoring Lubricants Groups (SG)	Vincent	Thomas	Kellen
Monitoring Fuels Groups (SG)	Max	Mike	Kellen
Monitoring Transmissions (SG)	Frank	Nick	Kellen
Monitoring Reference Fluids Groups + Rating	Vincent (Lubes) / Max (Fuels)	Mike (Fuels)	Kellen
Constitution	Frank	Mike	Kellen
External Communications	Frank	Paul G.	Kellen

<b>Quality/SDG</b>	Vincent (Lubes)/ Mike (Fuels)	Max (Fuels)	Kellen
<b>Lubricant Tests:</b>			
<b>TDG-L-107 - Sludge</b>	Adrian	Vincent	Kellen
<b>TDG-T-108 - Pitting</b>	Frank	Vincent	Kellen
<b>TDG-L-114 – Toyota TCCD</b>	Paul D-B	Bengt	Kellen
<b>TDG-L-115 – Bearing Wear Test</b>	Thomas	Bengt	Kellen
<b>TDG-L-116 – Ring Liner Wear Test</b>	Thomas	Bengt	Kellen
<b>Fuel Test Development:</b>			
<b>TDG-F-113 - IDID</b>	Max	Mike	Kellen
<b>SPG – GDi Wear</b>	Nick	Vincent	Kellen
<b>SPG – Corrosion Test</b>	Paul DB	Bengt	Kellen
<b>Confidentiality Issues</b>	Frank	Mike	Kellen
<b>CEC Future Role</b>	Frank	Mike	Kellen

### 3. Update on TDG's - Activity report – timeframe January-June 2018

#### 3.1. TDG-F-113 – DISI test

The test has been installed and is running at ISP. The initial validation runs are complete and conclusive when compared with original OEMs indications. There is a draft test method for Keep Clean but not for Clean Up. The test operating conditions have been aligned between all labs currently running the test. One major issue concerns the impossibility to identify a suitable EN228 high fouling with the existing hardware.

The TDG held a meeting on 11th April. Following this, it was decided to review the action and propose new steps. The next TDG meeting will take place on 13th September.

Timewise, it is expected that there will be a one year delay.

#### 3.2. TDG-L-107 – M271 Sludge Test

The group did some work to determine the oil consumption and needed to change some test conditions. Haltermann produced a new fuel batch and the first test on this new fuel batch to a modified test procedure has started. Test is going on at APL and is half way through.

The new test procedure should reduce oil consumption and allow the engine to get to end of test (EOT). This first test is on the low calibration oil and should give an average engine sludge rating of 8.6 +/- 0.2 at around 275 to 300 hours.

A face-to-face meeting is being organized around the 16th of July to coincide with the EOT ratings being available for the group to discuss next steps which if successful, will likely be a test for discrimination on the high calibration oil. At this time the current TDG plan is still applicable, for Phase 2 RR to be complete by end of 2018.

#### 3.3. TDG-T-108 - Pitting Test

Following the last TDG meeting that took place on April 9th the group has run the RR testing and has statistical results. They had two options to continue and the MB supported the following option with the provision that the SDG-group endorses this option also:

“To publish the test procedure and to close the group, establishing at the same time a regular SG and to collect the required further test results based on a limited number and frequency of reference runs to define r-values. Group members would be in favour of this option and the group’s SDG will discuss the requirements also within the next meeting of SDG-group in May. “

#### 3.4. TDG-L-114 - Toyota Diesel Turbocharger Compressor Deposit test proposal

The first engine will be shipped from ISP to APL beginning of week 26. So far the test kit is tested at ISP and complete.

The group is currently 10 weeks behind the schedule. But there are still chances to finish the test development in time, since just one lab is participating in the round robin. The total test duration of each round robin phase is between 4 and 6 weeks, therefore, the first results could be available in August, and then the following in September and October.

Total won the tender. The reference fuel name is CEC DF-99-18.

### 3.5. TDG-L-115 – Low Soot Bearing Wear Test

TDG-L-115 was setup and an inaugural meeting took place on May 9th via conference call and Ralf Meyke has been confirmed as the Chair. The TDG agreed on the ToR and on the drafted roadmap. A list of potential test rig suppliers was prepared. A questionnaire on test rig specification was sent out to potential suppliers and the next F2F meeting is planned for 25th July.

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

TDG-L-116 was setup and an inaugural meeting took place on May 18th via conference call and Udo Böcker has been confirmed as the Chair. A survey was sent out to the TDG member asking which friction rigs are known and who has installed them in their labs. Based on the survey results, the list of rig suppliers and labs that currently have the rig available will be prepared. Some ACEA members, MAN, DAF and IVECO, have joined both TDGL-115 and TDG-L-116 as experts. The next meeting will be on 26<sup>th</sup> July.

### 3.7. Results of CEC secretariat and MB surveys

Early May we conducted a review of the CEC secretariat among the Chairs and Vice-Chairs of the CEC Working Groups. Thank you for those of you that submitted a response. Your information is critical in assessing the performance of the secretariat. As you can see the secretariat has shown steady improvement in performance:

Average score	2018	2017	2016
Speed	9.2	8.8	8.8
Quality	9.1	8.8	8.7

I am happy to report that the CEC MB has extended the contract with Kellen until end 2020, based on your information from the survey.

Together with the review of the secretariat we also included a review of the CEC MB. Again, thank you for your feedback! Although we received the same number of responses as for the secretariat, many of the Chairs and Vice-Chairs indicate no direct exchange with members of the CEC MB, resulting in a lower number of ratings. This indicates that we may want to extend the scope of our survey beyond the Chairs and Vice-Chairs. The rating scores are shown below:

Average score	2018
Speed	8.1
Quality	8.1

## 4. Update on SG's - Activity report – timeframe January-June 2018

### 4.1. SG-L-104

The Test Method is in good control but the QR has deteriorated slightly from  $r = 1.0$  and  $R = 0.9$  in the original Round Robin (where the test control limits were defined) to  $r = 1.2$  and  $R = 1.0$ . Also since the Round Robin in 2015 to date a reduction in severity in both reference oils has been observed. This is in the region of ~5 merits (Avg PC) on RL 256 (HR) and ~2 on RL255 (LR), effectively increasing discrimination.

4 test laboratories are running the test on a routine basis. Unfortunately Daimler Lubes has had to resign from the group, but a representative from the Daimler Berlin engine plant is able to continue to participate.

The Test method is published and continues to be updated as required.

The Reference Oils and fuel continue to be available.

Test "life expectancy" is now out until 2019 and Daimler is investigating if this can be extended until 2021. Hardware is being reused so 4 tests in total can be achieved on each cylinder block. Requirements are defined for their reuse and there is no evidence that this change has had an impact on severity, although very little reference oil data is available. A new batch of pistons and rings has been produced and their performance is currently being assessed by ISP.

### 4.2. SG-F-110

The SG-F-110 method, a fuels test for IDID, has been suffering from precision issues since late 2016 / early 2017. Since that time the SG has been trying to improve the test precision by various initiatives. The main initiative was to improve the clarity and detail of the fuel blending method (fuel plus contaminants) which was identified as a potential source of significant variability between test laboratories and the test is known to be very sensitive to the fuel blending procedure. A round robin has been conducted (late 2017 / early 2018).

The group had a meeting on 8th May during which it was agreed to declare the test out of control. Because of the current test precision, the test is not fit for its intended purpose and should not be used as an industry standard test until this is rectified or the test objectives are redefined.

The CEC working group members recommend that the test is returned to development status and they will continue to support and investigate the issue, to develop an acceptable CEC test.

The group recently held a conference call to discuss the results of the latest round robin which showed that the injectors were affected very similarly by IDID. The group has requested to go back to the TDG phase which the MB accepted.

The TDG will no longer run test until they have identified the issue. The group will do more analyses. If the results are successful, then the TDG would ask the MB to go back to SG.

#### **4.3. SG-T-066**

The group had a meeting on April 10th. Two years ago they were having trouble with spare parts, reference oils, and reference parts. They showed good progress and are continuing working on identification of reference fluids. The high reference oil is not yet stable, and they are still doing RR testing with some of the reference parts but this this group is steadily getting back on track.

#### **4.4. Chair Appointments SG's**

##### SG-T-045

The nomination of Ms. Selin Manukyen as successor to Mr. Helmut Melchior as Chair of SG-T-045 was endorsed by the MB in May.

##### SG-T-084

The nomination of Mr. Clive Dunn as (Vice) Chair of SG-T-084 as successor to Mr. Feuchter was endorsed by the MB in May as well as the nomination of Mr. Robert Belcher as Secretary as successor of Mr. Dunn.

#### **4.5. Safety Update**

As you know, one of our strategic items concerns the Surveillance Groups where the CEC MB is looking for a re-focus of the SG activities on test improvements, use of statistics but also safety aspects of the test. Although there are examples of safety driven enhancements in CEC tests, such as the development of L-103 and L-112, the CEC MB would like to further increase activity and visibility in this area. We intend to address this aspect in our 2018 CEC Workshop on November 28<sup>th</sup> in Brussels.

### **5. Events and representation**

#### **5.1. CEC Workshop – November 28th 2018, Brussels**

Following the first CEC workshop which was held in 2016, we are pleased to announce that the next edition will take place on Wednesday, November 28th, 2018 at the Brussels Marriott Hotel Grand Place, Rue Auguste Orts 3-7, 1000 Brussels. The CEC MB and the secretariat are working on the programme and a save the date invitation has been distributed. A workshop dinner will also take place the evening before (November 27<sup>th</sup> from 19:00).

### **6. Strategic Outlook**

#### **6.1. Fuel Test Development**

Following the recent CEC Fuel Test Developments, F-110 and F-113, contact with the CONCAWE science representative and other previously communicated initiatives; all identified short term actions have been taken. The activity will continue with opportunities being sought to start new test developments. Contact with the relevant CONCAWE groups will be maintained on a regular basis. Other opportunities to identify new contacts will be taken if and when identified. The last initiative was to reach out to suppliers of Fuel

Injector Equipment so CLEPA has been contacted. They have responded that they need more time to investigate internally so if there is no interest from CLEPA, this item can be closed.

## **6.2. Enhancements to CEC Test Development Process**

All aspects of the test development process have been thoroughly reviewed. Two focus areas were identified:

- Test Development Process enhancements, including guidelines for the development of ToR and the formation of Special Project Groups to develop ToR, focus on project management skills when selecting the TDG Chair and increased focus by the TDG on the project deliverables and timeline.
- Support to the TDG by CEC MB, including focus on support to the TDG by the CEC MB liaison, closer monitoring of TDG progress by the CEC MB and more active issue resolution by the CEC MB.

These improvements have been captured in revised Guidelines, which have been issued to Chairs and Vice-Chairs of the TDG's and SG's. Feedback on the revised Guidelines has largely been positive and a Q&A session will probably be organized during the Workshop in November.

## **6.3. CEC Role in engine hardware supply**

Supply of engine hardware for CEC tests is not a trivial matter but is essential for our industry. Last year, the CEC MB has reached out to European stakeholders in engine hardware supply to understand the situation in Europe, which proves to be diverse, but nevertheless there is a role for CEC in facilitating hardware availability in Europe. The CEC MB has endorsed the ToR for L-114, the Toyota Turbo Charger Compressor Deposit Test, welcoming Toyota as a new hardware sponsor. Toyota, ISP and CEC have agreed that hardware storage and supply for this test will be handled by ISP as a test case.

## **6.4. CEC Stakeholder Engagement**

In October and December CEC MB representatives have engaged with ATC, ATIEL and CONCAWE to update our stakeholders on the progress on our Strategic Items. Following ACEA's letter to their members asking for continued support to CEC we are looking at opportunities to further engage with OEM's and would like to encourage them to attend the Workshop in November.

For the coming year we had planned a revamp of the CEC Website, due to some delays this will be continued for 2019.

## **6.5. Activities of the SGs**

The CEC MB has looked at developing procedures to facilitate the interaction with the Surveillance Groups and seeking opportunities to focus the SG activities on test improvements. This has resulted in establishing performance indicators which will allow MB and SG members to monitor and appraise performance. Also currently the guidelines are being reviewed to remove any inconsistencies and duplications in order to make them clearer for the users. The updated guidelines will be launched at the Workshop.

## **7. Office move – CEC Secretariat**

The CEC Secretariat has moved offices as of July 1st, 2018. The new location is Avenue de Tervueren 188A, 1150 Brussels, close to Montgomery. Phone numbers and email addresses remain the same.

## **8. Upcoming event and activity for the 2nd semester of 2018**

- MB Conference Call on August 28th, 2018
- MB Meeting on September 28th, 2018 at CEC offices in Brussels
- MB conference Call on October 23rd, 2018
- MB Meeting on November 27th, 2018 at CEC offices in Brussels
- TDG-L-115 and TDG-L-116 meetings on July 25th and 26th, 2018, at the Ringhotel Sellhorn in Hanstedt, Germany
- SG-L-078 Meeting on September 12th, 2018, at Marshall's Industrial Ltd. , UK
- TDG-F-113 Meeting on September 13th 2018 at ISP Grand-Couronne, France
- SG-F-005 & SG-F-020 Meeting on September 26th, 2018, at APL Landau, Germany
- SG-F-098 Meeting on November 7th, 2018 at DTC Testing GmbH, Vienna, Austria
- SDG Meeting on 13 – 14th November, 2018 at Infineum in Milton Hill, UK
- CEC Workshop on November 28th, 2018, at the Marriott Grand Place in Brussels