

## CEC ACTIVITY REPORT JANUARY - JUNE 2019

### 1. Chairman's Introduction

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

First of all I would like to thank Frank for all his hard work as CEC chair over the last 2½ years. The strategic items the Management Board worked on with Frank's leadership have set the foundation for CEC moving forwards.

Along with these items and with the feedback from the 2018 workshop we are now working on the new strategic items during my term as CEC Chair. The main theme for these items will be communication and will build on the hard work over the last few years.

2019 has so far been quite a busy year for the Management Board with four new tests under development and going well, one test back in development status and two tests now developed. CEC have also been approached for the development of two new engine tests which should start development before the end of the year. You can see more details in the information below.

### 2. List of Board Members and Responsibilities

#### 2.1. List of Board Members

Frank Stunnenberg	ATC (Chairman) stepped down in June 2019
Nick Clague	ATIEL (Chairman) since June 2019
Mike Conroy	CONCAWE (Vice-Chairman)
Bengt Otterholm	ACEA
Paul Decker-Brentano	ACEA
Nigel Britton	ATC
Nikolay Doroshenko	ATIEL
Walter Mirabella	CONCAWE

Nick Clague (ATIEL) has taken over the Chair from Frank Stunnenberg (ATC) at our CEC Face-to-Face Management Board meeting on June 18.

Frank will stay responsible for the financial part and will stay on the Board as the CEC treasurer.

Max Staudacher (CONCAWE) stepped down from the CEC Management Board. His position has been taken by Walter Mirabella (CONCAWE).

## 2.2. Management Board Responsibilities

Issue	Leader	Backup	Admin, Secretariat
General Administration, Finance	Nick/Frank (Finance)	Frank	Kellen
Monitoring Lubricants Groups (SG)	Nick (engine)/Nikolay (Bench)	Nick/Nikolay	Kellen
Monitoring Fuels Groups (SG)	Mike	Walter	Kellen
Monitoring Transmissions (SG)	Frank	Bengt	Kellen
Monitoring Reference Fluids Groups + Rating	Nigel (Lubes)/Walter (Fuels)	Mike (Fuels)	Kellen
Articles of Association / Guidelines	Nick	Mike	Kellen
External Communications	Nick	Frank	Kellen
Quality/SDG	Nigel (Lubes)/Mike (Fuels)	Walter (Fuels)	Kellen
<b>Lubricant Tests:</b>			
TDG-L-107 - Sludge	Nigel	Paul	Kellen
TDG-L-114 – Toyota TCCD	Paul D-B	Bengt	Kellen
TDG-L-115 – Bearing Wear Test	Bengt	Nigel	Kellen
TDG-L-116 – Ring Liner Wear Test	Nigel	Bengt	Kellen
<b>Fuel Test Development:</b>			
TDG-F-113 - IDID	Mike	Walter	Kellen
SPG – Corrosion Test	Nick	Bengt	Kellen
Confidentiality Issues	Nick	Mike	Kellen
CEC Strategic items	Nick	Mike	Kellen

## 3. Update on TDG's - Activity report – timeframe January – June 2019

### 3.1. TDG-F-113 – DISI test

The engine test method is considered to be essentially the final version and only minor modifications are expected in future editions.

Engine installation work has been done at several labs.

At one of the last meetings, the fuel development was on-time with respect to the revised timeline after the initial difficulties in generating the required levels of injector fouling.

However, more recent test results have shown that further fuel development work is necessary to ensure appropriate clean-up performance.

The group have requested that the fuel supplier deliver a dirty-up fuel that responds to known clean-up additives in the same way as a 'typical' engine in the European marketplace that had similar levels of injector fouling.

The TDG has set up a fuel subgroup to work on the dirty-up fuel and also another subgroup to help align the installation in the different labs.

The group continues to work with the parts supplier, and with Volkswagen to ensure that parts are readily accessible in reasonable time frames and at market competitive prices, currently the delays are seen as prohibitively long.

### 3.2. TDG-L-107 – M271 Sludge Test

As a reminder, the CEC MB has accepted the TDG to move to Phase 2 on the understanding that:

- The lead lab will run the first two RR tests
- The first test on RL262 to set the test length
- The second test on Oil C (RL274) to prove discrimination
- Once complete and discrimination is confirmed allow continuation of RR

Phase 2 is now in progress. The lead lab has completed high and low reference tests on the current fuel batch and set the new test duration. Three labs are participating in the Phase 2 RR testing.

Two labs have completed the RR tests and the results are within the targeted range. The third lab experienced a delay but testing is expected to start soon. The test could move into SG phase by Q3 depending on the third lab results.

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

The CEC MB has approved the T-108 test method and the move to SG status. However the CEC MB representative will work with the group Chair to make sure that all labs complete their results.

Results from the test have shown that there is no scatter from micro pitting, there is a good separation between high and low RL and acceptable reproducibility. However, there are limited RL dataset and repeatability data are not yet available.

The current chair was re-approved for 1 year. The Vice Chair still needs to be appointed.

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

The SG representative presented the statistical results of the test to the Management Board on 18 June. The Round Robin tests are completed and there is good separation between the calibration oils. The analysis of the test data shows that correcting the data for soot improves precision and widening the valid soot window reduces invalid tests.

Both labs are reasonably well aligned but estimates of reproducibility are not robust due to lack of labs / stands taking part in the Round Robin.

Achieved r and R is similar to targets for piston deposit tests once the differences in rating scale are factored in. Testing in a single engine is likely to provide better repeatability than the Round Robin, which used multiple engines.

Results also suggest that a relative to reference specification might be better than an absolute specification to help remove engine-to-engine variability.

The Management Board approved the RR results and the move from TDG to SG Status.

The TDG is finalizing the test method, which still needs TDG members' approval before being officially released by CEC. The next TDG meeting will take place on 12 September.

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

One high and one low demonstration oil have been identified. The latter being the same as the HDO but w/o DI-package and adjusted VM and base oil mix to adjust to HDO viscometrics. The test matrix will be run first with HDO to establish the test conditions and then they can run the LDO. Discrimination of the oils will have to be demonstrated.

The test bearings supplier has been identified and parts supply is now in place. Phase 1 testing started at the lead lab at the end of April 2019.

The meeting initially planned for 23 May was postponed. The group has screened the proposed test parameters and came across unexpected results. A conference call has taken place on 21 June to discuss the next steps.

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

The high and low calibration oils have been identified. Initial testing will start on the high calibration oil to set the test conditions. Demonstration oils are also being identified.

The main delay concerned parts supply, which has now been resolved. The plan is to have the test ready by the end of 2019.

## **4. Update on SG's - Activity report – timeframe January - June 2019**

### **4.1. SG-F-110**

The test went back into TDG phase last year. Since then the group has tried to find a way forward to develop a performance test. One option was to revert the test to a pass/fail mode but this was rejected as the group wanted a performance test. The TDG is currently looking at modifying the test procedure in order to develop a test that has sufficient repeatability and precision. They agreed to finish all actions relating to data analysis of the existing test database (no new tests are being run). These actions were targeted at identifying potential sources of poor precision. Based on some of this analysis one test lab has agreed to conduct 2 tests at the extremes of the permitted temperatures for the soak-in period, namely at 15°C and 25°C. The analysis suggested that whilst +/- 5°C is a relatively small operating window it could be that the effects are nevertheless significant.

The group are facing the same problem as SG-F-98 regarding the support from the engine hardware supplier.

#### **4.2. SG-L-104 & SG-L-099**

Engine production has started again will supply available to all participating laboratories. Daimler are now working on alternative parts sourcing for the engine due to a US embargo on Russian sourced engine parts. It is still expected the engines will be available until 2022.

#### **4.3. SG-L-106 & SG-L-111**

The DV6 and EP6 engines will stop serial production at the end of 2019. PSA has found an alternative solution to continue supplying engines and both engines will be available through a third party until at least 2022.

#### **4.4. SG-L-109**

At the last meeting, the group discussed the matter to remove the control limits for dKV from the CEC L-109 method because it was never used in any ACEA specifications. The proposal was supported by SDG and endorsed by the CEC Management Board.

#### **4.5. SG-L-112**

The Management Board approved the official closing of SG-L-39 following the withdrawal of the method as the final two elastomer materials that were previously available have now exceeded their two year shelf-life. TMS capabilities have also been withdrawn, as there is nobody using the test and reporting data.

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

#### **5.1. ASTM Roundtable on February 26 in London**

Industry representatives from CEC and CEC stakeholders met with the ASTM D02 committee in February to discuss how each organisation operates and if there were opportunities to share common work. Each organisation also described their current methods of operation with the aim to share best-practice ideas. Both parties agreed to further discussions in the future and the development of ideas.

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

The CEC Management Board is looking into all the input and the feedback received and will come up with a proposal on addressing the issues for the coming years.

### **6. Strategic items**

A new proposal for strategic items has been drafted for endorsement at the next Management Board meeting. The proposal is focused on improved communication which includes working with stakeholders and external collaborators, re-developing the CEC website and optimising working group management.

There will be training for stakeholders, TDG's and SG's on roles and responsibilities and we will look towards greater interaction between these groups and the Management Board. We will also look to increase the awareness of CEC and its activities with the wider industry through increased promotion of CEC.

Finally we will continue to work on the development of new fuels tests through work with the fuels industry.

### **7. Upcoming event and activity for 2019**

- Management Board Meeting on September 24th , 2019 at CEC offices in Brussels
- Management Board Conference Call on October 29th, 2019
- Management Board Meeting on November 26th , 2019 at CEC offices in Brussels
- TDG-L-115 meeting on August 23rd at IST Prüftechnik, Kassel, Germany
- SG-L-78 Meetings on September 11th, 2019, at ISP Salzbergen, Germany
- SG-L-106 Meeting on October 2nd, 2019, At Chevron, Rotterdam, Netherlands
- SG-L-103 Meeting on October 8th, 2019, at Eurofins, Jena, Germany
- SG-F-05 & SG-F-20 on September 25th March, 2019 at SGS, Prag, Czech Republic
- SG-F-23 & SG-F-98 on November 5th & 6th, 2019, at Intertek, UK
- SDG Meeting on November 19th & 20th, 2019 at Lubrizol Ltd, Hazelwood, UK