

EGEA Working Group 2 (WG2)

-Emissions-

Wednesday 23rd July 2014, 10h30 – 17h00 (first day)

EGEA Offices

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Minutes

1. Opening and welcome

Harald Hahn, Chairman, welcomed everybody and stated that the opportunities exist in the new Directives and looked forward to the two days discussion to understand how EGEA Members could benefit.

Pete Bradley was elected to take the minutes

Participants were:

AICA	Massimo Brunamonti
AICA/ Bosch	Marco Le Brun
AICA/ Brain Bee spa	Ettore Gorreri
AICA/ Texa	Emiliano Pasin
ASA/AVL DiTest	Harald Hahn
ASA/ Hella Gutmann Solutions	Pete Bradley
ASA/ Maha	Antonio Multari
AVL DiTest	Heiko Scharke
FVU/Autocom	Christer Larsson
FVU/ Opus Equipment	Johan Olsén
GEA/Autologic	Andrew Betteley
GEA/Continental	Peter Houlden
GIEG/CAPELEC	Georges Petelet
RAI/ Snap-on Tools B.V.	Robert Hoevenaar
RAI/ TEN Automotive	Mark De Goede
EGEA	Pattemore, Neil

2. New PTI Roadworthiness Directive

- Analysis of the outcome: implications for emissions testing

Harald Hahn presented the current Directive 2014/45/EU and its key elements. (see Presentation – Key elements)

Member states are able to use either OBD or tailpipe test for Euro 6/VI vehicles. The PTI test is intended to be common across all Member States. Some exceptions for Euro 5/V vehicles are included if the member state can produce the test result in another way to show 'equivalence'.

Extension to L Cat (powered two wheelers) and T5 (tractors with a design speed above 45 kmph) which are used for commercial purposes.

High mileage vehicles >160,000km

Exemptions such as Historic, diplomatic and military etc.

ECSS, included using Electronic testing via Vehicle interface. A harmonized defect list will be introduced for all ECSS testing.

The final ECSS report will be available at the end of this month.

Statement about how to implement within PTI stations. Technical information provision is for the PTI test centres and competent authorities, but not for test equipment manufacturers, but should become available for workshops via the test equipment, this is being discussed in Germany and should be finalized in the near future.

Both methods for emissions (Tailpipe or OBD) are allowed for Euro6/VI but for Euro 5/V the default is Tailpipe unless equivalence for OBD is proved by the member state. The question of how to prove equivalence is still open and no advice is being provided at this time.

Neil Pattemore explained the situation and status of discussions with member states, EC and ISO. Questions as to how to do OBD with the differences between the different Euro emission standards and how they will be monitored are being raised. Differences of opinion exist between the member states on advice from VM and traffic or road agencies or ministries.

Air quality across Europe has not been improved as predicted even though the emission requirements through type approval have been continuously increased. The question if the test cycle (European Drive Cycle) is real enough has been raised and it is to be reviewed. The main concern is NOx and fine particulate matter. Various influencing factors affect this such as the removal of components (e.g. a DPF) and differing software versions.

A significant difference exists between the US and Europe, the EOBD communication against testing is much more reliable and accurate in the US.

Measuring NOx methods need to be refined to produce reliable results.

Massimo Brunamonti mentioned the ASM from US, this is only for Petrol vehicles.

Other elements are:

Minimum standards for equipment, skills and training for inspectors and non-government testing stations now exist.

Detection and punishment for mileage fraud is also included but presents difficulties in proving if and when a crime has been committed.

PTI test result certificates are mutually recognized across all member states.

Timing – in force May 20, 2014. National legislation within 36 Months (May 2017). Application 48 months (May 2018) thereafter. Some member states are against L Cat testing, however, delays can be expected due to member states not willing to implement.

Massimo Brunamonti indicated that it is important that we are involved in advising the Commission on implementation measures and guidelines. The Commission has Delegated Acts which allows for extensions or improvements to the Directive without having to revise the Directive.

Antonio Multari informed about the roadside safety inspection directive 2014/47 which intends to force member states to increase the amount of testing compared to existing levels. 5% of the total vehicle park of HDV's and LCV's must be tested annually.

VIP – Vehicle Information Platform.

Neil Pattemore explained the process of where the vehicle and PTI information comes from and where it goes. EGEA members will not necessarily get this information. This is still a concept and still needs to be accepted.

- Implementation of the PTI Directive at national level: Feed-back requested from each country (WG2 participants) on current activities and measures in EU Member States

Harald Hahn introduced the key issues for action. (see Presentation - Implementaion)

Emission testing including plate value is being ignored by some member states. e.g UTAC statistics (Georges Petelet), from 6 mio Veh, 16% below 0.5 and 28% below 0.1 using plate value. The plate value is not necessary for trucks (Euro VI) but for Euro V it is.

Georges Petelet presented proposal for a new smoke meter measurement. Resolution (0.001m-1) allows for measurements shown below 0.5m-1 but not 0.1m-1.

In Germany there is a new regulation that will define the accuracy of and calibration of equipment and an industry based working group has been formed (Regelermittlungsausschuss. Investigative committee for rulings) which now has equipment manufacturers as stakeholders.

Massimo Brunamonti presented the Italian proposal of procedure and limits for testing opacity.

A request for both French and Italian proposals is to be summarized in English and submitted to the WG. This will be used to start a common proposal for measurement. Georges and Massimo will provide this to the WG Chairman.

Mark Goode presented a graphical comparison of the different Euro standards. Mark will provide the graphic to the WG. He also informed that Shell has a new diesel GTL (Gas to Liquid) which is for commercial use only and provides emission compliance without the need to fit a DPF.

- Collection of EGEA questions concerning the implementation of the PTI Directive with a view to submit these to the EU Commission and/or to elaborate a Guidance Paper from EGEA.

Examples:

- Which procedure shall apply when an EU country will go for "OBD only" (What means "proof of equivalence"? What means 'OBD test'?)
- What will happen and which procedure shall apply if the OBD system is not ready or fails to communicate?
- What functionality should the OBD test tool include (protocols covered, test routine etc.)?

Suggestions for how member states can show 'equivalence'

Procedures exist in Type Approval, by setting certain faults to illuminate the MIL but it is very flexible and prone to be misleading as nothing is really checked.

The group agreed that to prove equivalence would be difficult and is comparing apples to pears. Arguments against should be technical. DEKRA and TÜV are conducting tests for the commission on vehicles, 1,000 petrol and 1,000 diesels, until the end of October. The report is to be submitted to the commission by end of January with a recommendation to the commission by March 2015.

Emission related (VM Defined) fault codes must be read.

Software version should be checked (tampering and manipulation) reference 2014/45recital 8.

(8) Member States should consider appropriate measures to prevent adverse manipulation of, or tampering with, vehicle parts and components that could have a negative bearing on required safety and environmental characteristics of the vehicle, in particular through the periodic roadworthiness test, including effective, proportionate, dissuasive and non-discriminatory penalties.

Tools should be linked from test to result to avoid falsification. WG10 is working on a workshop equipment network software. Only certified equipment should be used. Protocols for OBD should be declared in the type approval document.

CVN (Calibration Verification Number) should be used to check the software of the OBD.

3. Initiatives on emissions at national level: round-up

- Italy: creation of a new standard for tailpipe tests for diesel/ updating of the technology and procedure for PTI regarding
- France: study and investigation for the improvement of opacity meters
- Germany: Update on the PTB Study and findings

Italy - how to deal with MID (Measurement and Instrument Directive) 2014/32 which has been a recast of 2004/22 Directive due to so many amendments to that.

Sweden - Uses only OBD since 2009 and tailpipe test when OBD indicates failure.

UK – prefer OBD but is still under study.

Germany – the PTB (Physicalische-Technische Bundesanstalt – Physical Technical institute) study designing the Tailpipe test process 5. 0.5 will be the new threshold for the emission test. Test Decision/Result is done by the equipment not allowing the inspector to interfere. Government prefers OBD, the industry, Tailpipe.

France – Improving opacity meters. In favor of tailpipe testing but with a more accurate opacity meter and tests are being carried out. Tests to identify e.g. an EGR valve failure.

4. Initiatives on emissions at European level (Presentation)

- Review of UNECE Regulation 83 on Euro 6 OBD requirements and reference to ISO 27145:
 - What would be the impact if ISO 27145 is included?
 - Should there be more robust type-approval and market surveillance for emissions OBD?
 - Should EGEA propose any technical revisions to support better emissions OBD accuracy?
- EU level: Report about CITA SET study

The WG2 members agreed not to push for a better OBD system functionality, so as to allow the potential issues to be exposed and tailpipe testing to be used as the basis for emission testing.

Follow up from the TEDDIE project as this was seen as weak. CITA SET study on 2,000 vehicles (1,000 petrol and 1,000 Diesel). A set of data and a procedure has been defined for all participants. Opacity test on N1 and M1 vehicles to determine an acceptable opacity level, also the comparison between OBD data and Tailpipe will be done. It is a fully automated procedure with no interference from the inspector. MAHA, AVL, Bosch and Capelec are involved in the testing, DEKRA and TÜV Nord in the data. NOx will not be part of the study. 5 main countries will be involved, Spain, France, Germany, Netherlands and Italy. Test takes 8 to 10 minutes. Timeframe - Field trials until Dec, analysis done by end of Jan, Draft report end of Feb, final report and recommendations by March 2015.

Neil Pattemore reported on the experts group, RTWG (Roadworthiness Technical Working Group) dealing with OBD within the roadworthiness initiative.

There is no bridge between ECSS and WWH-OBD.

Maintain the arguments for tailpipe testing in that OBD does not become too robust.

5. How to include NOx measurements in the future?

- Collection and review of studies/analysis already carried out
- Should NOx measurements be included in the type-approval legislation or in a future revision of the PTI Directive?

There are little or no activities.

6. Input from WG2 Members/Emissions for activities for WG2 in 2014/2015 (background: the EGEA Board is making a work plan for 2014/2015)

Proposals and suggestions:

How do we go forward, what do we tell the member states and / or the commission?

Definition of what is meant by an OBD emission test is needed.

Create a position paper for use with the member states and the commission. Highlighting the fallibility of the "only OBD" position.

Research the USA testing as to why it works over there and not here?

Problems – Unknown protocols for communication and the use of non-certified or non-approved OBD testers for emission tests. The answer to these issues can only be tailpipe testing. The tailpipe test unit is certified calibrated and results are encrypted from the measuring device to the display (anti-tamper) this is fixed in the new directive.

The RTWG are already working on a definition of tests, what, how and the information required to do the tests. This also includes Emissions and will include the ECSS project.

Decision

Neil will draft a one pager about 'what is an OBD test' and circulate it.

7. Any other business

There is no other business.

8. Thank you and closure

Harald Hahn closed the meeting and thanked everyone for their contribution.

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Please note that a sandwich buffet will be served during the lunch break.

We are looking forward to seeing you all in Brussels for this WG2 meeting dedicated to emissions only,

With kind regards,

Sylvia Gotzen
EGEA Secretary General