

Report to WP.29 about results of the 14th meeting of the Informal Working Group on Periodical Technical Inspections

The 14th IWG on PTI meeting was arranged with support of International Motor Vehicle Inspection Committee (CITA) and held on 28 May 2019 in Brussels (Belgium).

1. Priorities of the IWG on PTI and timeline

The group start concentrating its efforts on the general framework of in-service compliance assessment the vehicles and their components. It implies the definition of the object for in service compliance, durability requirements, methods and instruments to be used.

The group confirmed that activity on the assessment of the feasibility of a Particulate Number (PN) and NO_x measurement methods shall be continued.

The approach proposed by the group for a safety assurance framework, based on a risk-analysis method, has to be further developed in accordance with WP.29 framework document on automated/autonomous vehicles.

2. Coordination of the IWG on PTI with other WP.29 activities

The group considers that the requirements for the performance of vehicles their systems and components including automated/autonomous driving systems for in service compliance is one of the WP.29 priority task. The general framework of in-service compliance assessment the vehicles and their components could be a guidance for WP.29 and its subsidiary GRs to facilitate and guide discussions and activities on in-service performance of the vehicles including automated/autonomous vehicle.

3. In-Service compliance

Following the working plan, approved by the WP.29 at it's the 177-th session, the group began to discuss the structure of general framework of in-service compliance assessment the vehicles and their components. The basic elements of the document could include in-service compliance assessment principles, a risk-analysis approach, and safety aspects. It provides a guidance for WP.29 and its subsidiary GRs to manage activities on in-service performance of the vehicles including automated/autonomous vehicle.

Principles for in service compliance enforcement are to be developed taking into consideration:

- a shift towards sustainability of transport systems, where all aspects of vehicle use need to be considered, including safety, the environment, mobility, efficiency, productivity and personal security;
- the increased complexity of vehicles and the need for them to be properly maintained throughout their life;
- the opportunities afforded by advanced on-board and off-board measurement systems to reduce the cost of compliance;
- vehicle design and validation methods should demonstrate compliance a vehicle would be expected to perform during a normal operation;
- access, under well-defined and agreed pre-conditions, to the technical specifications of each individual vehicle and the data needed for objective verification of the functionality of the safety and environment related systems, whether or not the safety and environment-related systems are functioning;
- development of in service compliance vehicle assessment methods for periodical technical inspection and where appropriate, road side inspection;
- role of roadworthiness inspections, including PTI, is to verify in-service vehicle compliance.

It was noted that safety of in-use vehicles is not listed in the currently agreed WP29 priorities on automated/autonomous vehicles.

The general view of the group is that vehicle self-diagnosis might play a role in continuous compliance, provided it is trustable and impartial. In all cases, the third party assessment and inspection will have an essential role to play. Furthermore, it is necessary that UN Regulations consider the concept of continuous compliance.

3. Measures to detect tampering: methods and supervision

The group reviewed set of measures aiming to facilitate the detection of tampering, presented to GRPE. The proposal of GRPE to extend the work to other relevant regulation and to cover further aspects was supported.

The representative of the Netherlands presented the methodology to measure PN during PTI.

The PN measurement method is efficient to detect malfunctions and tampering in particle traps. The difference of readings between acceptable and non-acceptable vehicles is large enough to avoid doubtful assessments and the rejection of approved vehicles.

5. Innovative technologies

Accident emergency call systems are mandatory in the Russian Federation since 2015 and since 2018 for M₁ and N₁ vehicles registered in the European Union. UN Regulation 144 had entered into force in 2018. The Russian Federation distributed the draft proposal for a new UN Rule devoted to uniform provisions for periodical technical inspections of accident emergency call systems (AECS). It covers AECS control unit,

network access device, GNSS receiver, microphone, loudspeaker and other critical components, methods of inspection and main reasons for rejections. The document will be discussed during the next meeting.

6. Guidance for road-side technical inspection and enforcement

The Russian Federation and CITA updated proposals for road-side technical inspections as draft amendments to the resolution R.E.6. It was decided the proposal to be submitted to the WP.29 as an informal document for its the 178-th session.

7. Consistency between the provisions of the 1968 Vienna Convention and the technical provisions for vehicles against the rules in the framework of the 1997 Vienna Agreement

The 1968 Vienna Convention is to be updated regarding the general framework of in-service compliance assessment the vehicles and their components.

8. Other Business

The group taken into consideration remark of the representative of Sweden related to absence of the requirements for inspection of the gas tanks according to UN Regulation 110 in UN Rule 3 “Uniform provisions for periodical technical inspections of motor vehicles using compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system with regard their roadworthiness”. It was agreed to continue discussion on the subject next session.

The group monitor the activity on the inclusion of two- and three-wheelers and light trailers in the scope of roadworthiness testing.

The International Conference of CITA, hosted by KOTSA was held on April 2nd to 4th, 2019 in Seoul, South Korea. The main outcome has been the shift of the aim of the association, from periodical inspection to whole-life vehicle compliance. The materials of the conference can be found in this link: <https://cita2019.citainsp.org/documents/>

9.Next Meeting

The next Meeting is tentatively scheduled on September 10, 2019, hosted by RDW in The Netherlands.
