

<p>Report of the ad-hoc GRRF meeting on EVSC Paris 12 December 2005.</p>

Chairman: Mr. Laszlo PALKOVICS

Secretary Mr. Peter Koleszar

Participants: see list of participants **EVSC05-43.**

Associated documents: *EVSC04-01 Rev 5 Amendment to R13*
EVSC05-38 Rev 5 as Annex
EVSC05-38-1 Proposal amended
EVSC05-38-2 Proposal amended
EVSC05-38-3 NL comments
EVSC05-39 R13 EVSC mandation proposal

Meeting start: 10:00, 12 December 2005

The chairman opened the discussion, reviewed the agenda to come to a more consistent program.

Approval of the minutes of the London meeting: Mr. Brett had a comment on the protocol; there was some misunderstanding about the specification of simulation structure in the EC framework directive. The protocol has been revised.

Mr. Jennison presented document EVSC05-42 which contained an analysis of the accident data - for Bavaria in 1997 - of some 70 accidents of commercial vehicles over 3.5 tonne resulting in fatalities or severe injuries which could have been prevented or minimised by an electronic vehicle stability control system, from which the accident used in document EVSC05-13 had been selected. The analysis showed that the majority of accidents happened to towing vehicles with trailers over 12 tonne on dry country roads between 70 and 90 km/h.

The chairman pointed out, that the task given by the GRRF to the working group has been slightly changed, because the aim is to deal only with vehicles of 7.5 tons and above. Also important is that the proposal should be created as an annex and not as a part of the main text.

Mr. Palkovics opened the main task of the meeting: modification of the 5th revision based on the feedbacks, approving its final structure and text.

Mr. Jennison presented the working documents of the meeting: There has been a new document EVSC05-38 created, based on EVSC04-01 Rev5 that contains the technical

requirements of the EVSC, while document EVSC05-39 gives recommendations on the vehicles where the EVSC should be mandatory.

It was agreed that EVSC05-38 would become the working document for the meeting.

Mr. Hirano presented the comments of Japanese experts. It proposes the specification of the vehicle testing method for vehicle approval. The 2.1.3 is also modified, recommends creation of performance levels for judgement. According to Japanese experts the simulation is not yet appropriate for type approval, so each EVSC function should be demonstrated with real vehicles. The judgement of the demonstration should be basically visual, without performance criteria. In case the vehicles tests are hard/impossible to execute, then “other” previously defined tests/simulation should be conducted. The Japanese experts have not defined the proposed test cycles of the vehicle demonstration yet.

Comments on the Japanese proposal:

Mr. Gaupp: The proposal is not too practical: the “Visual improvement” is too liberal; it depends on different factors and makes the type approval very subjective.

Mr. Jennison: It is hard to define the circumstances for testing; they may be only available during winter. How should these “other tests” be treated in case the required tests are not executable?

Mr. Hirano: Japanese government would not accept simulation.

Mr. Palkovics: In the actual revision (EVSC04-01 Rev 5) there is an OR relation: either dynamic test or simulation. Why would the Japanese government not accept this proposal?

Mr. de Haes: Only previously validated simulations can be used and accepted, of course. Validation is done with the help of real dynamic tests. Simulation is the only appropriate and affordable solution.

Mr. Hirano asked Mr. Palkovics to provide an example of the process and results of validation of such a simulation SW.

Mr. Palkovics: Only dynamic testing is an unnecessary burden for vehicle manufacturers, since expensive demonstration tests would be required instead of simulation. It is unacceptable to exclude simulation from type approval; also the work of the working group was recently based on defining the circumstances of the simulation. What the working group should find out is how to define dynamic tests with the same particularity as of the simulations.

Mr. Palkovics requested the Japanese experts to review their proposals, and to provide any new documents well before the next meeting so that other delegates would have time to consider them prior to the meeting.

Mr. Ross presented the resultant proposals of a meeting between Wabco, Haldex, Knorr-Bremse and TÜV NORD. These proposals include mainly the trailer point-of-view. (Also see doc EVSC05-38-1)

Main topics:

- Who guarantees the correct function/installation of the EVSC, the manufacturer of the vehicle or the manufacturer of the EVSC system?

- Application with respect to suspension type
- Limitations on location of sensors and controller(s)
- Definition of test vehicle – also the towing vehicle

Mr. Gaupp presented his proposal to include a dynamic operation check with the simulation (see also document EVSC05-38-2). A dynamic operation check should be carried out on a vehicle fitted with the vehicle stability function, identical to that used in the computer simulation and the results included in the test report. This should be only to have a feeling about the vehicle, because the Technical Service wouldn't want to approve a vehicle based only on written test reports, without having the possibility of testing/checking an actual vehicle.

Comments to Mr. Gaupp's proposal:

Mr. de Haes: Isn't the dynamic operational check what we wanted to avoid?

Others: It is strange that even the Technical Services do not trust the simulation and require dynamic tests.

As a result, a compromise has been reached and the text has been revised.

There has been a dispute about describing the test circumstances – try to define them now or in the future, create a footnote in the text signalling the future definition or not.

Decision: no reference for future definition, the requirement is to make the vehicle over- or understeer.

Mr. Ruijs has presented the proposals of TNO (see also document EVSC05-38-3). The proposal contains procedure for calculation the deviation between the test and dynamic test results.

Wording "when mandated" has been left in the text.

In reviewing document EVSC05-39 it was considered that:

- Buses shall be installed with directional control and roll stability control.
- The ADR requirements would be moved to Annex.
- Transitional provisions will be reviewed by OICA before GRRF.

Unfortunately the modification and approval of the text has not been finished till the end of the meeting. So the chairman asked the participants to send their final comments and proposals till 16th December to the secretary. If – based on the comments – there will be a need for a final meeting, a full-day last meeting will be held on 27th January in Munich. If there will be requests only for minor changes like wording, the final text will be elaborated off-line by the chairman and his assistants.

The chairman then closed the meeting thanking all participants for the contributions and their positive attitude.

Enclosed documents and presentations:

EVSC05-38 Rev1 Proposed amendments to ECE Reg 13

EVSC05-39 Rev1 EVSC mandation proposal

EVSC05-41 Rev1 Final agenda Paris

EVSC05-43 Participants

Peter Koleszar

Secretary EVSC ad hoc Meeting.