

* UK Comments are shown in Red in tracked changes

Informal Working Group on Acceleration Control for Pedal Error (ACPE)

I. Proposal

A. Terms of Reference

1. The Informal Working Group (IWG) ~~shall~~^{has} developed a draft regulatory proposal to make a new UN-Regulation for Acceleration Control for Pedal Error (ACPE) for M₁ ~~and N₁~~ vehicles, ~~[and possibly for other vehicle categories,] and related system to prevent or mitigate collision with objects or other road users.~~
2. For the 01 Series, the IWG shall:
 - a. review the test procedure and requirements
 - b. develop test procedures and requirements to capture- 'moving-off' and low speed scenarios
 - ~~bc.~~ consider the behaviour of ACPE toward pedestrian target
3. The IWG shall furthermore consider whether to include vehicles of category N1 (and other M/N categories) in the scope of the regulation
4. In particular the IWG shall address the following issues:
 - (a) Take account of existing data and research in making its regulatory proposals. It should consider pre-existing standards, Regulations from other territories and NCAPs for making its proposals.
 - (b) Define state of the art performance requirements, especially for collisions involving objects, vehicles and/or pedestrians, activation speed, and the trigger of activation (e.g. detecting objects, detecting collision, operation speed of acceleration pedal) based on the results from the action item above.
53. The IWG shall take account of developments and work in cooperation with other subsidiary Working Parties (GRs) of WP.29 and their IWGs. The IWG shall check the coexistence with road traffic conventions (1949 Geneva convention and 1968 Vienna convention), if necessary
64. Text shall, to the fullest extent possible, be performance based and technology neutral.
75. The IWG ~~shall has delivered the complete regulatory text for Acceleration Control for Pedal Error (ACPE) requirements as original text and will deliver an new 01 series amendment of the UN Regulation for the~~ ~~[May 2024~~ January 2025 ~~]~~ session of GRVA.
8. The IWG shall also consider the feasibility of drafting further amendments to the regulation, in particular operation at higher vehicle speeds, and will request to further extend the mandate of the IWG if necessary.
896. After completing the tasks above, if as desired by the Contracting Parties of the 1998 Agreement, the IWG ~~could~~^{will} develop a Global Technical Regulation compatible with the 1998 Agreement for consideration and possible adoption by 1998 Agreement.

B. Rules of Procedure

1. The IWG shall report to GRVA and is open to all participants of WP.29.
2. Two Co-Chairs (Japan and Germany) and a Secretary (OICA) will manage the IWG.

3. The Co-Chairs may invite experts (at their discretion), including non-participants of WP.29, to assist in the development of technical standards.
4. The working language of the IWG will be English.
5. All documents and/or proposals must be submitted to the Secretary of the relevant group in a suitable electronic format in advance of the meeting. The group may refuse to discuss any item or proposal which has not been circulated five working days in advance to the meeting.
6. An agenda and related documents will be circulated to all members of the IWG in advance of all scheduled meetings.
7. Decisions will be reached by consensus. When consensus cannot be reached, the Co-Chairs of the group shall present the different points of view to GRVA. The Co-Chairs may seek guidance from GRVA as appropriate.
8. The progress of the IWG will be reported routinely to GRVA – wherever possible as an informal document and presented by the Co-Chairs.
9. All documents shall be distributed in digital format. Meeting documents should be made available to the Secretary for publication on the dedicated website.
10. Final decision on proposals rests with WP.29 and the Contracting Parties.

II. Justification

- ~~1. Japan has a strong interest in enhancing road traffic safety especially for further protection of accident happen by pedal error. We particularly consider that Acceleration Control for Pedal Error (ACPE) for passenger vehicles is one of the significant and effective technologies to avoid or mitigate collisions with objects and VRUs (GRVA 14 14).~~
- ~~2. GRVA is expected to discuss this new IWG on the base of this draft of TOR at its January session of 2023.~~
- ~~3. This draft of TOR was discussed within interest meeting held on 28 November based on Japanese text.~~

1. During the development of the draft UN Regulation on ACPE, the IWG identified that the test procedure defined within JNCAP, which is largely reproduced in the draft UN Regulation, does not fully represent real-world scenarios. For example when vehicles ‘creep’ when the brake pedal is released. It is therefore proposed to revise the test procedure in an 01 series to address this issue.
2. The IWG also identified that collisions with pedestrians represent a significant number of the incidents resulting from pedal misapplication. However, there remain open questions about the scope of pedestrian requirements, and an appropriate test procedure to verify these. Therefore such requirements were not included in the original version of the draft UN Regulation.
3. The ACPE IWG therefore agreed that the IWG should continue to discuss about a pedestrian targets, a-moving off requirements, a-creeping tests, and any other necessary refinements to the draft UN Regulation for inclusions in an etc. IWG will propose 01 series of amendments of ACPE regulation in to be submitted to the January 2025 session of GRVA.
4. There is a challenge with ACPE operating at higher speeds due to the interaction with AEBS and the issue of differentiating between a pedal misapplication and an intended AEBS override by the driver. However, accident data does show a significant proportion of pedal misapplications occurring in moving vehicles. Therefore, it is appropriate for the IWG to consider the feasibility of regulating ACPE at higher speeds.
