

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

- **GRVA-2024-24 (00 series of ACPE regulation)**
- **GRVA-19-28 (Extension of TOR)**
- **GRVA-19-29 (Introduction and Maintenance of GRVA-2024-24)**

IWG meeting 6th meeting in UK (27 - 29 February 2024):

Following the guidance from the previous GRVA, we decided to submit **only** the 00 series to the May session of GRVA.

- **00 series proposal of ACPE regulation**
- **Pedal misapplication accidents and Installation rate**
- **Discussion on testability**

IWG meeting 7th meeting in web (26 March 2024):

- **Discussion for working document of 00 series of ACPE**
- **Extension of TOR for preparing the 01 series amendment**
- **Introduction of the regulation**

Results are submitted as GRVA-2024-24 (00 series)

IWG meeting 8th meeting in web (16 May 2024):

- **Extension of TOR for preparing the 01 series amendment**
 - **The results are submitted as GRVA-19-28**
- **Introduction of the regulation**
- **Solving the pending issues of the working document**
 - **The results are submitted as GRVA-19-29**

IWG of ACPE submitted below three documents to the may session of GRVA.

- **GRVA-2024-24**
- **GRVA-19-28**
- **GRVA-19-29**

Items

Introduction

IWG proposes the introduction of ACPE regulation per GRVA-19-29

Specifications

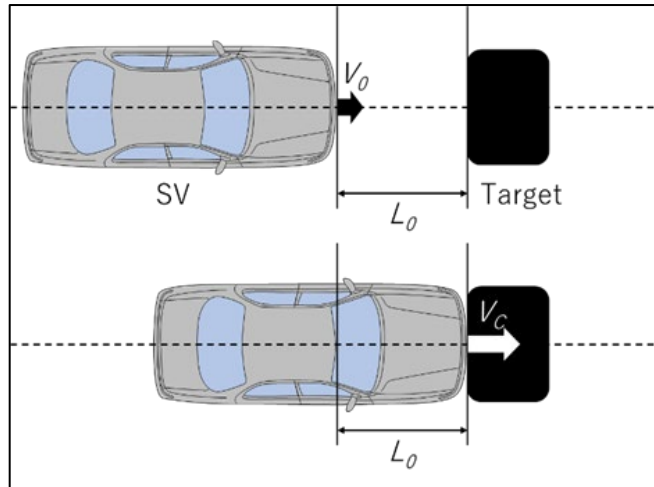
- **Performance Requirements (Para. 5.1)**
- **Deactivation (Para. 5.2)**
- **Failure detection / self-check (Para. 5.3)**
- **Warning signals (Para. 5.4)**
- **Provisions for the Periodic Technical Inspection (Para. 5.5)**

Test procedure

- **Test surface and environment conditions (Para. 6.1)**
- **Instrumentation (Para. 6.2)**
 - **Brackets were included in the working document in Para. 6.2, but it was agreed in the IWG to remove the brackets (GRVA-19-29).**
- **Test Vehicle (New Para. 6.3)**
- **Test Targets (New Para. 6.4)**
- **Accelerator control misapplication test (New Para. 6.5)**
- **Any test condition (New Para. 6.6)**

Performance Requirements

Standstill
↓
Acceleration



Test procedure (Standstill - Acceleration)
(ACPE-04-08)

- **Vehicle categories: M1 vehicle**
- **Vehicle is initially held with brake**
- **At start of test, brake is released and immediately accelerator is applied**

Main requirements in 00 series (basically copy of JNCAP):

- **Direction: Forward and Rearward**
- **Accelerator control speed: 400%/s (70% depression), reach 90% depression**
- **Alternatively: accelerator control force: The manufacturer shall justify the triggering threshold**
- **The ACPE shall limit vehicle acceleration in order to prevent or mitigate a collision with an obstacle located between 1.0 m and 1.5 m in front of or behind the vehicle. Obstacle defined in Para. 2.7 (vehicle, or a wall-like structure). Test target is only for M1 vehicle.**
- **In the case that a collision is not prevented, the collision speed shall be no greater than 8 km/h higher than the vehicle.**
- **In addition, the collision speed shall not be greater than 70% of that speed the vehicle would have had in the same position and under the same circumstances but without any ACPE intervention.**

We added new requirement for the vehicles having a low power-to-mass ratio in para. 5.1.6.1. (GRVA-19-29)

Proposal in GRVA-19-29

5.1.6.1. In the case of vehicles that do not exceed 8 km/h without ACPE in the test scenarios but for which a speed reduction of 30% cannot be achieved due to a low engine power to test mass ratio, the speed reduction shall be of at least 15%.

Deactivation in Para. 5.2

Short term deactivation, Long term deactivation and Automatic deactivation

Failure detection / self-check in Para. 5.3

GRVA-19-29 proposes merging the speed requirements specified in para. 5.3.4 into para. 5.3.2.

Warning signals in Para. 5.4

General, Intervention warning signal, Failure warning signal

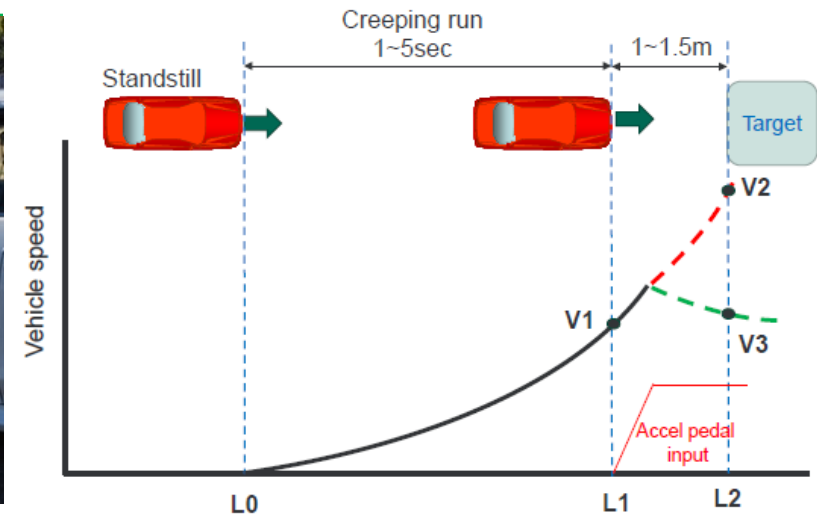
Extension of TOR for 01 series amendment (GRVA-19-28)

- ✓ Review the test procedure and requirements
- ✓ Develop test procedures and requirements to capture moving-off and creeping scenarios (brake release – creeping – accelerator application)
- ✓ ACPE towards pedestrian target
- ✓ The IWG shall furthermore consider whether to include vehicles of category N1 in the scope of the regulation

The IWG will deliver an 01 series amendment of the UN Regulation for the **January 2025 session of GRVA.**



Pedestrian target



Test procedure
(Standstill - Creeping run – Acceleration)

Schedule of meetings:

ACPE-09-00 (Furthermore information)

IWG meetings 9th meeting in Seoul (Korea)

19, 20, 21 June 2024

Date	Meeting	Detail
19-21 June 2024	9 th Informal meeting In-Person and Web (Seoul)	Discussion about requirements and test procedures for 01 series
18-20 September 2024	10 th Informal meeting In-Person and Web (BAST)	Discussion about requirements and test procedures for 01 series
23-27 September 2024	20 th GRVA	Report of IWG activities
[21-25] October 2024	11 th Informal meeting in Web	Discussion about requirements and test procedures for 01 series. Deadline for submission of formal document to 21 th GRVA
January 2025 (Before GRVA)	12 th Informal meeting in In-person or Web	Discussion about requirements and test procedures for 01 series

**Thank you
for your attention**