

POSITION OF JAPAN ON EMERGENCY STOP SIGNAL

Note: The text reproduced below was prepared by the expert from Japan. It refers to document ECE/TRANS/WP.29/GRRF/2006/2. Its aim is to state Japanese position on how activation and de-activation of the Emergency Stop Signal should be prescribed.

A. PROPOSAL FOR AMENDMENTS TO ECE/TRANS/WP.29/GRRF/2006/2

Proposed changes to ECE/TRANS/WP.29/GRRF/2006/2 are shown as below by **bold** characters with ~~double strike through~~ for deletion and underlined for insertion.

Paragraphs 5.2.1.31. to 5.2.1.31.2., to amend:

"5.2.1.31. When a vehicle is equipped with the means to indicate emergency braking, ~~the emergency braking signal shall be~~ activation and de-activation of the emergency braking signal shall meet ~~according to~~ the specifications below:

5.2.1.31.1. The signal shall be activated by the application of the service braking system with ~~as~~ following ings conditions:

| | Shall not be activated at <u>until the deceleration reaches:</u> |
|-------------------|--|
| M1 and N1 | 67 m/s ² 1/ |
| M2, M3, N2 and N3 | 5 m/s ² 1/ |

The signal shall be de-activated for all vehicles before ~~when~~ the deceleration falls to ~~is below~~ 2.5m/s².

5.2.1.31.2. The following conditions may also be used:

(a) The signal may be activated by the application of the service braking system in such a manner that it would produce, in an unladen condition and engine disconnected, under the test conditions of Type-0 as described in Annex 4, a deceleration of:

| | Shall not be activated at <u>until the deceleration reaches:</u> |
|-------------------|--|
| M1 and N1 | 67 m/s ² 1/ |
| M2, M3, N2 and N3 | 5 m/s ² 1/ |

The signal shall be de-activated for all vehicles before ~~when~~ the deceleration falls to ~~is below~~ 2.5 m/s².

(b) The signal may be activated when:

- the service braking system is applied and;
- the antilock system is full cycling (as defined in paragraph 2. of Annex 13) and;
- the initial speed is above 50 km/h."

Footnote 1/, should be deleted:

~~"1/ When measuring the deceleration, a tolerance of $\pm 1.25 \text{ m/s}^2$ will be applied."~~

B. JUSTIFICATION

The basic view behind the activation requirement is that what is important for ESS is to limit the range in which the device works, in order not to confuse the following drivers by unnecessary flashing. Since the vehicles without ESS continues to exist in the actual road environment, there will be mixed condition of ESS and conventional stop lamps. Drivers are get used to conventional stop lamps for long years, and there is possibility that drivers are confused with ESS flashing. Thus, it is more important to set the limit below which ESS shall not be activated to keep the activation of ESS within emergency braking situation.

Regarding the limit value, 6 m/s^2 for M1 and N1 is selected considering an informal document distributed at the 51st session of GRE (Informal Document No. 9), which recommends 6 m/s^2 as a lower limit for activation based on study conducted in Japan. The limit value of 5 m/s^2 for other categories is selected considering the current proposal (ECE/TRANS/WP.29/GRRF/2006/2), which proposes lower limit values for categories other than M1 and N1.

Following figure shows the schematic diagram of the limit values for M1 and N1 vehicles.

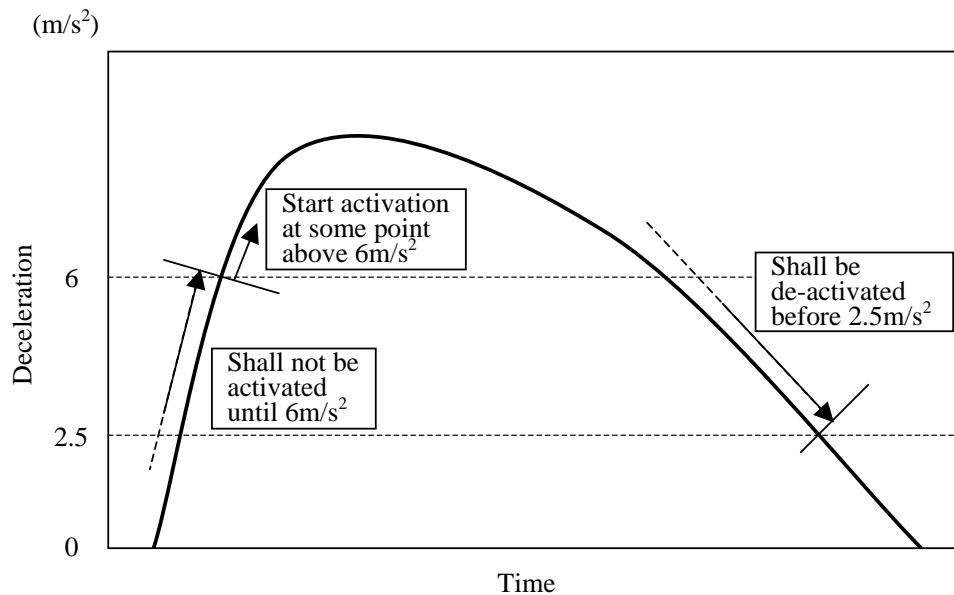


Figure. Limit values for M1 and N1 vehicles
