

Case B

[Draft]

UN GTR for In-Vehicle-Battery Durability

Current text in GTR Draft Annex 2 (“Monitor Flag”) – Case B

Cases B: where the vehicle was used “abnormally”:

1. The vehicle was stored (not connected) and not used for a full month on more than 3 occasions per year.
2. The vehicle was used more than 20 per cent of the time in conditions below -7 C or more than 35 C.
3. The vehicle was charged with superfast chargers more than 50 per cent of the time.
4. There was significant V2G or other usage of the battery that would not be shown by miles driven.

UN GTR for In-Vehicle-Battery Durability

Current status OICA proposal for Annex 2 Case B (DRAFT)

Case B: where the battery or vehicle was used “abnormally”:

- a. The vehicle was stored (not connected) and not operated for a [period] on more than [x] occasions per year which could lead as a result to either a deep discharge or other battery defects (error codes will set the Case B flag)
→ One occurrence sets the Case B flag
- b. The vehicles was operated more than [x%] of the vehicle lifetime in ambient temperature conditions below [-x°C] or above [x°C] but at least [minimum period to be defined]. → Counter required; if threshold reached: Case B flag will be set
- c. The vehicle was stored at a SOC higher than [x%] in more than [x%] of the vehicle lifetime but at least [minimum period to be defined].
→ Counter required; if threshold reached: Case B flag will be set
- d. The vehicle was fast charged for more than [x%] of the total charge throughput but at least [minimum charge throughput to be defined]. The fast charge throughput is accumulated in times when the fast charging current or the fast charging power exceeds [x%] of the [battery fast charging limits].
→ Fast charging counter required; if threshold reached: Case B flag will be set
- e. The discharged energy throughput is more than [1xx%] of $EC_{\text{Type_Approval_declared}} \left[\frac{Wh}{km} \right] * MPR_{\text{mileage}} [km]$ which indicates extensive usages of the battery which would not be shown by mileage driven such as e.g.
 - Significant V2X (V2Grid, V2Home etc.) usage
 - Additional energy amount in context of autonomous driving
 - Extensive use of towing or pulling a trailer or going on a race track→ Energy throughput counter required; if threshold reached: Case B flag will be set
- f. In case of OVC-HEVs: The customer was using charge increasing mode higher than [x%] in more than [x%] of the vehicle lifetime for PHEV but at least [minimum period to be defined]. → Counter required; if threshold reached: Case B flag will be set

Proposal: Add a Sentence which allows to add additional criteria in local regulations.