

UNECE: Development of GTR on EV safety

General:

- Mutual recognition has to be guaranteed (A GTR should harmonize requirements and therefore should avoid to introduce options that are only valid for several contracting parties)
- GTR requirements are focusing on vehicle homologation (type-approval and self-certification)
- Component approval of REESS should be allowed

In-use (occupant protection: protection against electric shock):

- The safety measures worked out in ELSA (ELSA-8-02. Rev.01) should be the basis for the GTR

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Post-crash: (occupant protection: protection against electric shock):

The following safety measures described in ELSA-8-05 Rev.01 should be the basis for the GTR

- Isolation resistance
- Direct/indirect contact
- 30 VAC/60 VDC
- Energy option

GTR post-crash requirements shall only be incorporated into existing relevant crash requirements applied by the respective Contracting Party. Therefore the scope of the whole GTR should be focused on category 1-1 and category 1-2 vehicles.

Best practices (e.g. discharge of REESS after a crash) or guidelines for manufacturers and/or emergency first responders have to be addressed but not in a GTR EVS.

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Rechargeable Energy Storage System (REESS):

- Safety requirements worked out by the UN RESS working group should be the basis for the GTR. (Thermal shock, thermal cycling, mechanical shock, overcharge/ isolation resistance, vibration, fire resistance, short circuit, etc.)
- REESS requirements take into consideration „in-use“ and „post-crash“ safety requirements
- (Transport of REESS is addressed by UN R38.3 under the regime of WP.15)

Charging (requirements including electric receptacle and connector)

- Safety issues are addressed by “In-use”, “REESS” and EMC requirements
- Standardisation of e.g. plug, “interface communication to the grid” is not a safety issue. Therefore this has not to be defined by the GTR on EVS