

EV Safety GTR Task Force Group #2 – Low Electric Energy

#7 EVS GTR Status Briefing

March 2015

TF #2 Activities

- TF leader assembled all relevant supporting technical material for TF review and comment (Primarily the 2013 revision of the US DOE Electrical Safety Handbook and details from the supporting IEEE technical paper).
- Material was sent out to the TF for review and comment.
- To date, there have not been any formal comments received regarding this information.
- One member of the TF has indicated that it is still evaluating the information and may provide comments in the future.
- Once these comments are received the TF will schedule a meeting to discuss them and determine next steps.

TF #2 Activities (cont)

- At the October 2014 Task Force #2 meeting, OICA proposed a modification to the low electrical energy calculation formulas to modify the integration limits for the total energy calculation from the post impact voltage of the capacitor to zero.
- This proposal was approved at the EVS #6 (Seoul) GTR IWG meeting.
- Furthermore, at that EVS GTR IWG meeting, TF#2's charter was expanded to include consideration of issues regarding the “barrier” option.

TF #2 Activities (cont)

- November 10, 2014, The Alliance of Automobile Manufacturers submitted a petition for rulemaking that:
 - Endorsed a prior Toyota petition based on the requirements of Global Technical Regulation on hydrogen and fuel cell vehicles, GTR No. 13 §5.3.2.2.2(b), which provides that systems having an AC bus connected to a DC bus shall have isolation resistance of 100 ohms/volt after impact at low speeds and physical protection of IPXXB.
 - Proposed additional performance requirements for protective barriers that would address concerns raised by NHTSA.
Specifically:
 - Limiting exposure to voltages between protective barriers to less than 60VDC and 30VAC, or
 - Limits on minimum resistance between high voltage components and barrier enclosures.

TF #2 Activities (cont)

NHTSA is currently evaluating this petition including both barrier options (limits on potential high voltage bus to barrier resistance and resulting maximum voltage).

