

Japan Position

1. Previous

The progress of battery technology is very rapid and this causes the difficulty to develop the standardized accelerated ageing method for “in vehicle battery ”

The method should represent all type of the electrified vehicles under the actual customers usage.

Support EVE-28-16e ;

OICA presentation on accelerated ageing test method for battery durability

2. **NEW** (reflected by discussions at January GRPE)

In addition to the above, Consideration and/or Evaluation of the environmental impact caused by battery deterioration in the vehicles should be conducted under the GRPE umbrella (EVE), including continuous research, clarification of the GTR purpose and GTR development.

Since Anti Global Warming is a global task, it is appropriate for UN to discuss its solutions. It's no doubt that the electrified technology is one of the candidates.

EVE-27-04e

Input to the Technical Report for
Battery Durability
(Japan, EVE 27th, Geneva, 5
June 2018)

Reminder (Status of technical report on battery durability)

- The technical report on battery durability has been written by the leadership of US and Canada.
- Four approaches to evaluate the reduction of vehicle level performance due to battery degradation were proposed in this report.

Reminder (CPs' demands to EVE)

- Three contracting parties (EC, the US & Canada and Japan) suggest that there is a common demand on the durability for pollutant emissions of OVC-HEVs and NOVC-HEVs under the situation which the batteries were degraded.

Then, EVE continues its research on battery durability tackling of the technical difficulties e.g. setting an appropriate conditions for testing batteries. JRC kindly dedicates to share results of their research.

Input to the technical report

- As an interim approach, EVE could consider that the possibility of use of deterioration factor for pollutant emissions from OVC-HEVs and NOVC-HEVs under the situation which the batteries were degraded. For conventional gasoline ICE vehicles, the deterioration factor for pollutant emissions is available.
- In this case, clear explanations that the treatment systems for pollutant can be manageable with the degraded batteries should be provided.
- Japan would like to input descriptions to require manufacturers to provide such “clear explanations” to the technical report.

Japan position on the Pollutants has already written in the EVE-29-03 Rev 2e-26-02-2019 currently being drafted.

3.4 Points of Agreement

HEV – Air Pollutants

On the Hybrid Electric Vehicles (HEV), for air pollutant durability requirements, some EVE IWG members had the view that the durability should be 160,000km for air pollutants for HEVs and PHEVs (the same as conventional vehicles) and that there should be a 100,000 km check via in-service conformity protocol. This however is still under discussion and no consensus view have been reached yet.

Japan has suggested that the EVE IWG could consider the use of deterioration factors for degraded batteries from OVC-HEVs and NOVC-HEVs since DF's are already available for internal combustion engine type vehicles. Japan also recommends that manufacturers provide clear explanations that indicate that the pollutant management system can still maintain appropriate pollutant levels as the battery degrades.