

## COP procedure for Fuel Consumption / Electric Energy Consumption

1 . Applicable to Fuel Consumption/Electric Energy Consumption Test under WLTP

2 . Criteria : shall meet the all following criteria

① Yearly average criteria : official value –  $3\sigma/\sqrt{N}$

• N : number of tests per year

•  $\sigma$ : standard deviation derived from all tests per [ xxx ] per year

② Production lot criteria : official value –  $3\sigma/\sqrt{n}$

• n : number of tests per lot (  $n \geq 3$  )

•  $\sigma$  : standard deviation derived from applicable [ xxx ]

In case that total number of “n” is equal or less than 10, appropriate “ $\sigma$ ” shall be used based on good engineering judgement.

③ Not exceed criteria : official value –  $3\sigma$

•  $\sigma$ : standard deviation derived from applicable [ xxx ]

In case that total number of “n” is equal or less than 10, appropriate “ $\sigma$ ” shall be used based on good engineering judgement.

3 . Run-in Factor

The following factor (either a or b) shall be applied to correct the vehicle “run-in” impact.

a : assigned “run-in” factor, 1.020

b : derived “run-in” factor according to appendix

need to consult with MLIT prior to its usage regarding

(1) evidence of derived “run-in” factor including the possession of statistical significance on fitting sloop (refer Fig1)

(2) validation method after start of production