



UN R154: Annex B9 for Level 1B and Level 2.

“Alternative Methods”



UN-R154: Annex B9, “Alternative Methods”. Addition to Level 1B and Level 2 Requirements.

Summary:

- Annex B9 to UN R154 specifies the option to use alternative testing methods compared to those given in the Regulation, if they yield equivalent results and is approved by the responsible authority.
- Usage of equivalent methods for homologation can reduce the testing efforts while maintaining, by definition, equal or even higher accuracy and precision.
- The option for alternative methods in the context of emission type-approval was first introduced with European Regulation (EU) 2017/1151 and was also included within UN R154, but Level 1A only.



Annex B9

Determination of method equivalency

This annex is only applicable for Level 1A;

1. General requirement

Upon request of the manufacturer, other measurement methods may be approved by the responsible authority if they yield equivalent results in accordance with paragraph 1.1. of this annex. The equivalence of the candidate method shall be demonstrated to the responsible authority.

1.1. Decision on equivalency

A candidate method shall be considered equivalent if the accuracy and precision is equal to or better than the reference method.

1.2. Determination of equivalency

The determination of method equivalency shall be based on a correlation study between the candidate and the reference methods. The methods to be used for correlation testing shall be subject to approval by the responsible authority.

The basic principle for the determination of accuracy and precision of candidate and reference methods shall follow the guidelines in ISO 5725 Part 6 Annex 8 "Comparison of alternative Measurement Methods".

1.3. Implementation requirements (RESERVED)

In order to achieve a higher level of harmonisation of emission Regulations worldwide, it is proposed to include the requirements of Annex B9 to UN R154 for Level 1B and Level 2 as well.