

Subpart G—Calculations

§ 1066.601 Overview.

- (a) This subpart describes how to—
 - (1) Use the signals recorded before, during, and after an emission test to calculate distance-specific emissions of each regulated pollutant.
 - (2) Perform calculations for calibrations and performance checks.
 - (3) Determine statistical values.
- (b) You may use data from multiple systems to calculate test results for a single emission test, consistent with good engineering judgment. You may also make multiple measurements from a single batch sample, such as multiple weighing of a PM filter or multiple readings from a bag sample. You may not use test results from multiple emission tests to report emissions. We allow weighted means where appropriate. You may discard statistical outliers, but you must report all results.

§ 1066.610 Mass-based and molar-based exhaust emission calculations.

- (a) Calculate your total mass of emissions over a test cycle as specified in 40 CFR 86.144 or 40 CFR part 1065, subpart G.
- (b) For composite emission calculations over multiple test phases and corresponding weighting factors, see the standard-setting part.

Subpart H—Definitions and Other Reference Material

§ 1066.701 Definitions.

The definitions in this section apply to this part. The definitions apply to all subparts unless we note otherwise. Other terms have the meaning given in 40 CFR part 1065. The definitions follow:

Base inertia means a value expressed in mass units to represent the rotational inertia of the rotating dynamometer components between the vehicle driving tires and the dynamom-

eter torque-measuring device, as specified in § 1066.250.

Driving schedule means a series of vehicle speeds that a vehicle must follow during a test. Driving schedules are specified in the standard-setting part. A driving schedule may consist of multiple test phases.

Duty cycle means a set of weighting factors and the corresponding test cycles, where the weighting factors are used to combine the results of multiple test phases into a composite result.

Road-load coefficients means sets of A, B, and C road-load force coefficients that are used in the dynamometer road-load simulation, where road-load force at speed *S* equals $A + B \cdot S + C \cdot S^2$.

Test phase means a duration over which a vehicle’s emission rates are determined for comparison to an emission standard. For example, the standard-setting part may specify a complete duty cycle as a cold-start test phase and a hot-start test phase. In cases where multiple test phases occur over a duty cycle, the standard-setting part may specify additional calculations that weight and combine results to arrive at composite values for comparison against the applicable standards.

Test weight has the meaning given in the standard-setting part.

Unloaded coastdown means a dynamometer coastdown run with the vehicle wheels off the roll surface.

§ 1066.705 Symbols, abbreviations, acronyms, and units of measure.

The procedures in this part generally follow either the International System of Units (SI) or the United States customary units, as detailed in NIST Special Publication 811, which we incorporate by reference in § 1066.710. See 40 CFR 1065.20 for specific provisions related to these conventions. This section summarizes the way we use symbols, units of measure, and other abbreviations.

(a) *Symbols for quantities.* This part uses the following symbols and units of measure for various quantities:

Symbol	Quantity	Unit	Unit symbol	Unit in terms of SI base units
a	acceleration	feet per second squared or meters per second squared.	ft/s ² or m/s ²	m·s ⁻²