

---

# 40 C.F.R. § 1065.1001

---

## Definitions.

---

The definitions in this section apply to this part. The definitions apply to all subparts unless we note otherwise. All undefined terms have the meaning the Act gives them. The definitions follow:

*300 series stainless steel* means any stainless steel alloy with a Unified Numbering System for Metals and Alloys number designated from S30100 to S39000. For all instances in this part where we specify 300 series stainless steel, such parts must also have a smooth inner-wall construction. We recommend an average roughness,  $R_a$ , no greater than 4  $\mu\text{m}$ .

*Accuracy* means the absolute difference between a reference quantity and the arithmetic mean of ten mean measurements of that quantity. Determine instrument accuracy, repeatability, and noise from the same data set. We specify a procedure for determining accuracy in § 1065.305.

*Act* means the Clean Air Act, as amended, 42 U.S.C. 7401-7671q.

*Adjustable parameter* means any device, system, or element of design that someone can adjust (including those which are difficult to access) and that, if adjusted, may affect emissions or engine performance during emission testing or normal in-use operation. This includes, but is not limited to, parameters related to injection timing and fueling rate. In some cases, this may exclude a parameter that is difficult to access if it cannot be adjusted to affect emissions without significantly degrading engine performance, or if it will not be adjusted in a way that affects emissions during in-use operation.

*Aerodynamic diameter* means the diameter of a spherical water droplet that settles at the same constant velocity as the particle being sampled.

*Aftertreatment* means relating to a catalytic converter, particulate filter, or any other system, component, or technology mounted downstream of the exhaust valve (or exhaust port) whose design function is to decrease emissions in the engine exhaust before it is exhausted to the environment. Exhaust-gas recirculation (EGR) and turbochargers are not aftertreatment.

*Allowed procedures* means procedures that we either specify in this part 1065 or in the standard-setting part or approve under § 1065.10.

*Alternate procedures* means procedures allowed under § 1065.10(c)(7).

*Applicable standard* means an emission standard to which an engine is subject; or a family emission limit to which an engine is certified under an emission credit program in the standard-setting part.

*Aqueous condensation* means the precipitation of water-containing constituents from a gas phase to a liquid phase. Aqueous condensation is a function of humidity, pressure, temperature, and concentrations of other constituents such as sulfuric acid. These parameters vary as a function of engine intake-air humidity, dilution-

---

air humidity, engine air-to-fuel ratio, and fuel composition—including the amount of hydrogen and sulfur in the fuel.

*Atmospheric pressure* means the wet, absolute, atmospheric static pressure. Note that if you measure atmospheric pressure in a duct, you must ensure that there are negligible pressure losses between the atmosphere and your measurement location, and you must account for changes in the duct's static pressure resulting from the flow.

*Auto-ranging* means a gas analyzer function that automatically changes the analyzer digital resolution to a larger range of concentrations as the concentration approaches 100% of the analyzer's current range. Auto-ranging does not mean changing an analog amplifier gain within an analyzer.

*Auxiliary emission-control device* means any element of design that senses temperature, motive speed, engine RPM, transmission gear, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission-control system.

*Average* means the arithmetic mean of a sample.

*Brake power* has the meaning given in the standard-setting part. If it is not defined in the standard-setting part, brake power means the usable power output of the engine, not including power required to fuel, lubricate, or heat the engine, circulate coolant to the engine, or to operate aftertreatment devices. If the engine does not power these accessories during a test, subtract the work required to perform these functions from the total work used in brake-specific emission calculations. Subtract engine fan work from total work only for air-cooled engines.

*C<sub>1</sub>-equivalent* means a convention of expressing HC concentrations based on the total number of carbon atoms present, such that the C<sub>1</sub>-equivalent of a molar HC concentration equals the molar concentration multiplied by the mean number of carbon atoms in each HC molecule. For example, the C<sub>1</sub>-equivalent of 10 µmol/mol of propane (C<sub>3</sub>H<sub>8</sub>) is 30 µmol/mol. C<sub>1</sub>-equivalent molar values may be denoted as “ppmC” in the standard-setting part. Molar mass may also be expressed on a C<sub>1</sub> basis. Note that calculating HC masses from molar concentrations and molar masses is only valid where they are each expressed on the same carbon basis.

*Calibration* means the process of setting a measurement system's response so that its output agrees with a range of reference signals. Contrast with “verification”.

*Calibration gas* means a purified gas mixture used to calibrate gas analyzers. Calibration gases must meet the specifications of § 1065.750. Note that calibration gases and span gases are qualitatively the same, but differ in terms of their primary function. Various performance verification checks for gas analyzers and sample handling components might refer to either calibration gases or span gases.

*Certification* means relating to the process of obtaining a certificate of conformity for an engine family that complies with the emission standards and requirements in the standard-setting part.

*Compression-ignition* means relating to a type of reciprocating, internal-combustion engine that is not a spark-ignition engine.

*Confidence interval* means the range associated with a probability that a quantity will be considered statistically equivalent to a reference quantity.

*Constant-speed engine* means an engine whose certification is limited to constant-speed operation. Engines whose constant-speed governor function is removed or disabled are no longer constant-speed engines.

---

This document is only available to subscribers. Please [log in](#) or [purchase access](#).

Purchase Login