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The result is the FID analyzer’s response factor for alcohol/carbonyl, $RF_{OHC=THC-FID}$ on a C$_1$-equivalent basis.

(c) Alcohol/carbonyl calibration gases must remain within ±2% of the labeled concentration. You must demonstrate the stability based on a quarterly measurement procedure with a precision of ±2% percent or another method that we approve. Your measurement procedure may incorporate multiple measurements. If the true concentration of the gas changes deviates by more than ±10%, the gas may be relabeled with the new concentration.


§ 1065.850 Calculations.

Use the calculations specified in §1065.665 to determine THCE or NMHCCE and the calculations specified in 40 CFR 1066.635 to determine NMOG.

[79 FR 23813, Apr. 28, 2014]

Subpart J—Field Testing and Portable Emission Measurement Systems

§ 1065.901 Applicability.

(a) Field testing. This subpart specifies procedures for field-testing engines to determine brake-specific emissions using portable emission measurement systems (PEMS). These procedures are designed primarily for in-field measurements of engines that remain installed in vehicles or equipment in the field. Field-test procedures apply to your engines only as specified in the standard-setting part.

(b) Laboratory testing. You may use PEMS for any testing in a laboratory or similar environment without restriction or prior approval if the PEMS meets all applicable specifications for laboratory testing. You may also use PEMS for any testing in a laboratory or similar environment if we approve it in advance, subject to the following provisions:

1. Follow the laboratory test procedures specified in this part 1065, according to §1065.905(e).

2. Do not apply any PEMS-related field-testing adjustments or measurement allowances to laboratory emission results or standards.

3. Do not use PEMS for laboratory measurements if it prevents you from demonstrating compliance with the applicable standards. Some of the PEMS requirements in this part 1065 are less stringent than the corresponding laboratory requirements. Depending on actual PEMS performance, you might therefore need to account for some additional measurement uncertainty when using PEMS for laboratory testing. If we ask, you must provide engineering analysis that any additional measurement uncertainty due to your use of PEMS for laboratory testing is offset by the extent to which your engine’s emissions are below the applicable standards. For example, you might show that PEMS versus laboratory uncertainty represents 5% of the standard, but your engine’s deteriorated emissions are at least 20% below the standard for each pollutant.

[70 FR 40516, July 13, 2005, as amended at 73 FR 37344, June 30, 2008]

§ 1065.905 General provisions.

(a) General. Unless the standard-setting part specifies deviations from the provisions of this subpart, field testing and laboratory testing with PEMS must conform to the provisions of this subpart. Use good engineering judgment when testing with PEMS to ensure proper function of the instruments under test conditions. For example, this may require additional maintenance or calibration for field testing or may require verification after moving the PEMS unit.

(b) Field-testing scope. Field testing conducted under this subpart may include any normal in-use operation of an engine.

(c) Field testing and the standard-setting part. This subpart J specifies procedures for field-testing various categories of engines. See the standard-setting part for specific provisions for a particular type of engine. Before using this subpart’s procedures for field testing, read the standard-setting part to answer at least the following questions:

1. How many engines must I test in the field?