this fact has been established, calibrations may be made at intervals once every hour. A significant drift shall be considered to have occurred if a 0.3 dB or more excursion is noted from the system’s predetermined reference calibration level. In the case of systems using displays with whole decibel increments, the operator may visually judge when the 0.3 dB drift has been met or exceeded. (2) The sound level measurement system must be checked periodically by its manufacturer, a representative of its manufacturer, or a person of equivalent special competence to verify that its accuracy meets the manufacturer’s design criteria. (b) An acoustical calibrator of the microphone coupler type designed for the sound level measurement system in use shall be used to calibrate the sound level measurement system in accordance with paragraph (a) of this section. The calibration must meet or exceed the accuracy requirements specified in section 5.4.1 of the American National Standard Institute Standard Methods for Measurements of Sound Pressure Levels (ANSI S1.13–1971) for field method measurements. 

§ 325.27 Use of a windscreen.

A properly installed windscreen, of the type recommended by the manufacturer of the Sound Level Measurement System, shall be used during the time that noise emission measurements are being taken.

Subpart D—Measurement of Noise Emissions; Highway Operations

§ 325.31 Scope of the rules in this subpart.

The rules in this subpart specify conditions and procedures for measurement of the sound level generated by a motor vehicle engaged in a highway operation for the purpose of ascertaining whether the motor vehicle conforms to the Standards for Highway Operations set forth in 40 CFR 202.20.

§ 325.33 Site characteristics; highway operations.

(a) Measurement shall be made at a test site which is adjacent to, and includes a portion of, a traveled lane of a public highway. A microphone target point shall be established on the centerline of the traveled lane of the highway, and a microphone location point shall be established on the ground surface not less than 31 feet (9.5 m) or more than 83 feet (25.3 m) from the microphone target point and on a line that is perpendicular to the centerline of the traveled lane of the highway and that passes through the microphone target point. In the case of a standard test site, the microphone location point is 50 feet (15.2 m) from the microphone target point. Within the test site is a triangular measurement area. A plan view diagram of a standard test site, having an open site within a 50-foot (15.2 m) radius of both the microphone target point and the microphone location point, is shown in Figure 1. Measurements may be made at a test site having smaller or greater dimensions in accordance with the rules in subpart F of this part.

(b) The test site must be an open site, essentially free of large sound-reflecting objects. However, the following objects may be within the test site, including the triangular measurement area:

1. Small cylindrical objects such as fire hydrants or telephone or utility poles.
2. Rural mailboxes.
§ 325.35 Ambient conditions; highway operations.

(a)(1) Sound. The ambient A-weighted sound level at the microphone location point shall be measured, in the absence of motor vehicle noise emanating from within the clear zone, with fast meter response using a sound level measurement system that conforms to the rules of §325.23.

(2) The measured ambient level must be 10 dB(A) or more below that level specified in §325.7, Table 1, which corresponds to the maximum permissible sound level reading which is applicable at the test site at the time of testing.

(b) Wind. The wind velocity at the test shall be measured at the beginning of each series of noise measurements and at intervals of 5–15 minutes thereafter until it has been established that the wind velocity is essentially constant. Once this fact has been established, wind velocity measurements may be made at intervals of once every hour. Noise measurements may only be made if the measured wind velocity is 12 mph (19.3 kph) or less. Gust wind measurements of up to 20 mph (32.2 kph) are allowed.

(c) Precipitation. Measurements are prohibited under any condition of precipitation, however, measurements may be made with snow on the ground. The ground surface within the measurement area must be free of standing water.

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