§ 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 (33.2 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.

§ 325.37 Location and operation of sound level measurement system; highway operations.

(a) The microphone of a sound level measurement system that conforms to the rules in §325.23 of this part shall be located at a height of not less than 2 feet (.6 m) nor more than 6 feet (1.8 m) above the plane of the roadway surface and not less than 3½ feet (.1 m) above the surface on which the microphone stands. The preferred microphone height on flat terrain is 4 feet (1.2 m).

(b)(1) When the sound level measurement system is hand-held or is otherwise monitored by a person located near its microphone, the holder must orient himself/herself relative to the highway in a manner consistent with the recommendation of the manufacturer of the sound level measurement system.

(2) In no case shall the holder or observer be closer than 2 feet (.6 m) from the system’s microphone, nor shall he/
§ 325.53 Site characteristics; stationary test.

(a) The motor vehicle to be tested shall be parked on the test site. A microphone target point shall be established on the ground surface of the site on the centerline of the lane in which the motor vehicle is parked at a point that is within 3 feet (.9 m) of the longitudinal position of the vehicle's exhaust system outlet(s). A microphone location point shall be established on the ground surface not less than 31 feet (9.5 m) and not more than 83 feet (25.3 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 2.