

# 40 C.F.R. § 53.42

## Generation of test atmospheres for wind tunnel tests.

(a) A vibrating orifice aerosol generator shall be used to produce monodispersed liquid particles of oleic acid tagged with uranine dye and monodispersed solid particles of ammonium fluorescein with equivalent aerodynamic diameters as specified in table D-2. The geometric standard deviation for each particle size and type generated shall not exceed 1.1 (for primary particles) and the proportion of multiplets (doublets and triplets) in a test particle atmosphere shall not exceed 10 percent. The particle delivery system shall consist of a blower system and a wind tunnel having a test section of sufficiently large cross-sectional area such that the test sampler, or portion thereof, as installed in the test section for testing, blocks no more than 15 percent of that area. To be acceptable, the blower system must be capable of achieving uniform wind speeds at the speeds specified in table D-2.

Table D-2— Particle Sizes and Wind Speeds for Sampling Effectiveness Tests

Particle size (µm) <sup>a</sup>	Wind speed (km/hr)		
	2	8	24
3±0.5	<i>l</i>	<i>l</i>	<i>l</i>
5±0.5	<i>l</i>	<i>l</i>	<i>l</i>
7±0.5	<i>l</i>	<i>l</i>	<i>l</i>
9±0.5	<i>l</i>	<i>l</i>	<i>l</i>
10±0.5	<i>l</i>	<i>l</i>	<i>l</i>
11±0.5	<i>l</i>	<i>l</i>	<i>l</i>
13±1.0	<i>l</i>	<i>l</i>	<i>l</i>
15±1.0	<i>l</i>	<i>l</i>	<i>l</i>
20±1.0	<i>l</i>	<i>l</i>	<i>l</i>
25±1.0	<i>l</i>	<i>l/s</i>	<i>l/s</i>

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