

**INTERPRETATION IC 52.2-2012-1 OF
ANSI/ASHRAE STANDARD 52.2-2012**
*Method of Testing General Ventilation Air-Cleaning Devices
for Removal Efficiency by Particle Size*

Approval Date: September 22, 2014

Request from: Bruce McDonald (brucesfilterteststandards@live.com), Consultant, Voting member of SSPC52.2, 1826 13th Ave. West, Shakopee, MN 55379.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 52.2-2012, Section 4.3, regarding the test aerosol used to measure fractional efficiency.

Background: Recently in the industry, there has been a claim that a newly developed methodology of particle generation that produces “quasi-solid particles” can be used to increase filter performance of HVAC filters by up to three higher MERV numbers in an ASHRAE 52.2 test. Those using this “quasi-solid particle” methodology claim that the test is conducted in accordance with ASHRAE Standard 52.2.

Interpretation: Only solid-phase, dry potassium chloride (KCl) particles shall be used for fractional efficiency measurement per ASHRAE Standard 52.2-2012. Tests conducted with any other aerosol are not conducted in accordance with Standard 52.2.

Question: Is this interpretation correct?

Answer: Yes

Comments: The standard is very clear on this in Sections 4.3.1 and 4.3.2.

Section 4.3.1 of ANSI/ASHRAE 52.2-2012 states, “The test aerosol shall be polydisperse solid-phase (dry) potassium chloride (KCl) particles generated from an aqueous solution”.

Section 4.3.2 of ANSI/ASHRAE 52.2-2012 states, “The aerosol generator shall be designed to ensure that the KCl particles are dry prior to being introduced into the test duct.”