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Kathleen Owen
SSPC 52.2 Chairman
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VIA Email

RE: RECOMMENDING TO NOT WITHDRAW ASHRAE STANDARD 52.2

Dear SSPC 52.2 Chairman,

I am writing on behalf of the Air-Filtration and Ultraviolet Light Treatment (AFUVLT) Product Section of the Air-Conditioning, Heating and Refrigeration Institute (AHRI) regarding ASHRAE Standard 52.2, *Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size*. As you are aware, AHRI is the trade association representing manufacturers of heating, cooling, water heating, and commercial refrigeration equipment. The manufacturers, distributors and retailers of air filtration and ultraviolet light products constitute a vital segment of the HVACR industry. The AFUVLT Product Section understands that ASHRAE's Standing Standards Project Committee (SSPC) 52.2 has discussed withdrawing ASHRAE Standard 52.2, adopting International Organization for Standardization (ISO) 16890, *Air filters for general ventilation*, in its place, and will likely vote on this topic in the near future. The AHRI AFUVLT Section would like to respectfully submit comments in support of retaining the ASHRAE 52.2 Standard and recommends not to adopt ISO 16890. The section believes that such action would not be in the best interests of the United States air filter industry or consumers.

AHRI has incorporated the ASHRAE Standard 52.2 method of test in the AHRI Standard 680, *Performance Rating of Residential Air Filter Equipment*, as well as AHRI Standard 850, *Performance Rating of Commercial and Industrial Air Filter Equipment*. As a result of the benefits of testing per these standards, a great deal of industry expense and effort has been invested to both test air filters to these standards as well as communicate the benefits of using these standards to US residential and commercial consumers. Both ASHRAE 52.2 and AHRI 680 are legislated into air filter requirements for the State of California Appliance Efficiency Regulations Title 20, and Building Energy Efficiency Standards Title 24. AHRI is actively responding to proposed air filter legislative updates for Title 20 and Title 24.

The three most pertinent reasons to not withdraw ASHRAE 52.2 are as follows:

1. ISO 16890 mandates an isopropyl alcohol (IPA) vapor conditioning step which completely neutralizes charged filters of their particle-attracting treatment. The conditioning requirement would significantly under-report the performance of many types of filter media and make it impossible to compare air filter product performance. For critical applications, where the removal of media charge is appropriate, Standard 52.2 already allows for testing and reporting using a conditioning step (Appendix J). AHRI Standard 680 does not require a conditioning step. There is also no significant research



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or a consensus that media charge removal is appropriate for residential and commercial applications.

2. The US market needs an air filter standard that reflects domestic needs. Replacing 52.2 with ISO 16890 would cause the US to lose control of appropriate test method standards. The ASHRAE committees responsible for 52.2 contains members representing a cross-section of the US, while the US has just one vote and significantly less influence in ISO. The US building stock has the majority of forced air recirculation systems, and ventilation air is only a small fraction of the total air flow. This is significantly different than European buildings. Adopting 16890 would likely negatively impact filter efficiency and energy usage for domestic residential systems, which have a limited space for filtration equipment.
3. Standard 52.2 reports the actual filter performance efficiency in removing particles of sizes from 0.3-10 microns in diameter. Unlike the ASHRAE Standard, the ISO standard assigns four ratings or classifications to filters and measures the equivalent fractional efficiency of ePM1, ePM2.5, or ePM10, depending on the filter's performance. PM was created as an outdoor measure for air quality. The AHRI product section strongly supports additional indoor air quality research and improvements to air filtration standards. Research shows that lowering PM levels has a direct impact on health. However more ASHRAE research and industry discussion, as well as consensus, is necessary to determine the appropriate way to create an indoor equivalent PM efficiency before the ePM approach is adopted.

In summary, withdrawing ASHRAE 52.2 would result in significant industry disruption and expenses. The AHRI Product section affirms its support for retaining ASHRAE 52.2.

AHRI appreciates the opportunity to provide these comments and the AFUVLT Section would be glad to discuss or elaborate on any of these comments further should you wish. Please do not hesitate to contact us through the coordinates below.

Sincerely,

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