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Op-ed: Time to upgrade air filters in all buildings

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Buck Ennis

A sickly orange haze lingered over New York for multiple days in early June.

The terrible air quality in the city from [Canadian wildfires](#) is just the latest example of how much air quality matters to New Yorkers. The health science is compelling: Bad air can literally be deadly.

For the past three years of Covid, we have been trying to stay healthy by wearing masks and by social distancing, especially while inside buildings. Covid was an indoor disease; few people contracted Covid while outdoors.

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What do these two health risks, smoke and Covid, have in common? Very small, invisible particles suspended in the air are what does the harm in both cases.

We know clean air and clean water are essential to good health. Yet why is it that we place so much emphasis on ensuring that the water we drink is safe, but we'll walk around virtually anywhere and into any building and breathe the air without a second thought?

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On the worst bad-air day from the Canadian wildfires two weeks ago, people in Manhattan were sitting outside having lunch, enjoying the strange orange glow in the sky! We need to care more about the air we breathe, specifically about how many small particles are in that air, and take steps to reduce the quantity of those particles.

The ventilation air quality standards in our building codes are not health-based. However, the Centers for Disease Control and Prevention are starting to lead on this issue, and national standard-making groups are also looking to change the situation.

It's also just good business. Companies are trying to get workers back to the office, and office landlords are competing for tenants. What if it were easy to make the air inside workplaces and businesses safer than at home? And what if employers could tout having superior air quality in the office to prospective talent? Wouldn't that help New York's commercial real estate sector?

It's relatively easy to do this, but we need to learn about air filtration and then we need to speak up. As with miles per gallon in a car or the air-quality index in a weather forecast, there's a simple numerical scale that's used to characterize air filters. It's called a MERV (Minimum Efficiency Reporting Values) rating, with a numerical scale from 1 to 16. Higher is better. We need air filters in buildings with a MERV rating of 13 or higher, with 15 or 16 being ideal.

With that type of air filtration, we can breathe air with significantly fewer small, airborne particles. Also essential is good circulation of air to and from the occupied space, as well as to and from the filters (by the building HVAC system or by portable air purifiers).

During the bad-air days two weeks ago, my firm took small-air-particle measurements and found that in office spaces with high MERV rating filters, the concentrations of these air particles indoors was 100 times lower than the concentrations outside. That's a huge difference. In response to Covid, many buildings have already upgraded their filters to MERV 13 and, now that we know even more about these very small particles from health science, we need to take one more step. MERV 15 is the new MERV 13. We will all be better off.

Scott E. Frank is managing partner of New York City based engineering firm Jaros, Baum & Bolles, where he specializes in heating, ventilation and air conditioning design.