

# The Air We Breathe

## Ensuring clean indoor air at all CPS schools

Watching dust floating in the air and sparkling in the sunlight seems like an innocent pastime. But that same dust, combined with invisible mold spores and chemicals, such as formaldehyde used in the manufacture of furniture and carpets, can cause asthma attacks, allergies and many other health problems.



So, when Cincinnati Public Schools began to replace and restore school buildings through its 10-year Facilities Master Plan, indoor air quality (IAQ) was at the top of the priority list. The concern wasn't just for new or restored buildings, however. The goal is to ensure a healthy environment in all CPS buildings.

The U.S. Environmental Protection Agency says 20 percent of the population, almost 55 million people, spends a significant part of most days in elementary and secondary schools. Old buildings, limited budgets and poor outdoor air can make healthy indoor air seem like an impossible daydream. But creative thinking by CPS and its partners is helping to ensure that all students and staff can be confident in the air they breathe.

"CPS created an Indoor Air Quality Advisory Committee to develop ways to ensure that all CPS buildings have clean air," says Cynthia Eghbalnia, the district's environmental health and safety coordinator. "They contribute to the cutting-edge look and feel that we want for our school buildings, as well as make sure that each is environmentally conscious."

Noting that CPS teachers, administrators, staff, parents and community partners bring a wealth of expertise to the process, Eghbalnia says the collaborative efforts are putting best practices into place. Schools such as Pleasant Ridge Montessori prove good air quality is achievable. In fact, the school's heating and cooling system is designed to circulate and filter air throughout the building in a way that removes many indoor air pollutants. But building green is only one element of the clean air challenge.

“Another piece is maintaining the green by making sure that anything that is brought into the building doesn’t have volatile organic compounds (VOC) that negatively impact air quality,” says Dr. Marilyn Crumpton, medical director for school and adolescent health at the Cincinnati Health Department. “It can be something as simple as low-odor markers or something as significant as chemicals used in the building, like pesticides.”

The EPA’s Indoor Air Quality “Tools for Schools” offers a host of ideas and guidelines for improving IAQ, according to Crumpton, and CPS is utilizing that resource to create protocols to support these efforts. One example is a new integrated pest-management procedure. The goal is to address pest concerns as quickly and effectively as possible. Included is a target of a two- to four-hour response time when a pest problem is reported.

“We also do inspections to make sure that we’re not harboring pests in the environment without knowing it and making it so the environment isn’t one they want to come into,” Eghbalnia explains. “It’s about controlling the types of materials that are used and using them wisely.”

Cleaning products that claim to be environmentally friendly are constantly being tested for use within the schools.

An indoor pollutant that can’t be smelled or seen also is included in the rigorous efforts to address air quality — radon. Radon comes from the natural (radioactive) breakdown of uranium in soil, rock and water and can be found all across the country in homes, offices and schools. The U.S. Surgeon General says it is the second-leading cause of lung cancer in the United States.

All CPS schools will be tested for radon gas, with approximately 12 schools tested each year on a rotating five-year cycle. During the current academic school year, the newest buildings were chosen because they have never been tested.

“It’s a relatively complicated process in a 58-school district,” Eghbalnia says. “And the requirement to test all ground-floor classrooms and meeting rooms adds to the challenge. We’ve received data back, and all of our schools have levels that are well below established criteria that would require any kind of remediation. This will be an ongoing process to continually evaluate radon levels within the schools.”

Many protocols for addressing IAQ issues are in place, but Eghbalnia and the IAQ Advisory Committee continue to investigate best practices for ensuring that CPS students are educated in the most environmentally friendly schools possible. And that helps everyone breathe a little easier. ★

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“Our challenge is finding chemicals that are effective, reasonably priced and environmentally friendly,” says Eghbalnia. “We won’t stop the search, but it is a difficult thing to find chemicals that will do the things we need them to do for the same cost that we’re paying now.”