

Is Mold the New Asbestos?

by Craig Colgan, ASBJ.com

Mold and other nasty stuff might right now be slithering through the walls, ceiling, carpeting, and air ducts of your schools, old or new. But often it's only after schools discover air-quality threats that the really nasty stuff begins.

The calculus would seem to be simple. If the problem is too many old, inadequate, poorly maintained schools, then the onset of a nationwide, historic, multibillion dollar building boom over the past 15 years would seem to be the solution.

But many districts that have benefited from that boom are now finding they must also live with an entirely new set of problems.

These problems can be mysterious to most school board members and administrators. They can inflame parents, community activists, and newspaper editorial writers. They can close down schools and leave districts with big bills. They can, on the plus side, inspire a whole new attention to serious issues often overlooked. But they can also attract a greedy pack of consultants, multipurpose problem solvers, and "experts" seeking to benefit from school districts' pain. Fortunately, these tribulations can usually be prevented if school districts take some important steps.

At issue is indoor air quality,

abbreviated in facilities circles as IAQ and often used as an umbrella term for many environmental-based health threats, man-made or nature-made. Mold spores invisibly drifting down on classrooms from moist ceiling tiles. Pesticides wafting over campuses. Sickening fumes emanating from formaldehyde-coated building materials. Radon issuing its invisible threat. Even plain old dust arising from recent construction or various decaying materials.

Increased attention to asthma—primarily as it affects schoolchildren who live in substandard housing—has also focused attention on whether such respiratory conditions can be exacerbated by poor indoor air quality at school.

Mold is the current culprit. Just when schools are figuring out how to handle some familiar facility problems, such as asbestos, or arsenic in drinking water, or lead in paint, along comes mold, spurred by the thousands of school building projects nationwide.

"Sick building" syndrome is not new to schools. What is new is the rapid marketplace response to such problems – and the ferocious speed with which air-quality and other building-related health concerns have attracted big lawsuits. To date, most of these lawsuits have been aimed at

residential construction. But schools know they can be the next big targets.

The high-dollar risk of poor indoor air quality

Ted Edwards gets asked a lot: Is mold the next asbestos?

"My answer is no," says the Raleigh, N.C., attorney who has made mold issues a focus of his practice with the firm of Kilpatrick Stockton. But considering whether one construction-related cash cow can inspire hunts for the next one is completely fair, Edwards admits. And one measure of an issue's importance is the increase in the number of lawyers around the country specializing in it. The preponderance of mold litigation has inspired full-time mold litigation teams, which Edwards says are now common at many law firms.

But the problems aren't caused by mold alone. Schools that evaluate their facilities systems after finding serious mold infestations usually discover that the mold problems are connected to other facilities management shortcomings.

Find mold, facilities experts say, and you'll generally find other, larger problems, such as construction specifications badly in need of updating; poor oversight of ongoing build-

ing projects; inadequate planning for crisis communication with employees, community, and media; and maintenance strategies that lack such mundane demands as inspecting roofs and ceilings regularly for evidence of leaks.

In 2002, insurance companies paid \$2.5 billion in mold claims, reports the Insurance Information Institute. It is unclear how many of those claims involved K-12 schools, either as plaintiffs or defendants. There is no widespread surge of huge-dollar lawsuits filed against school districts for matters related to air quality or coughing children and teachers. But districts are finding these days that more of their problems with builders involve air quality, when such lawsuits even a decade ago were not common.

School leaders are worried. Education groups as well as design and building organizations are offering courses and seminars on air quality for school facilities managers. Architecture magazine is running seminars around the country this year on school design and construction and recently added mold and indoor air quality to the topics list.

"Mold and IAQ are now issues of major concern to architects and their educational clients," says C.C. Sul

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livan, the magazine's editor-in-chief. "In both the design and operation of school facilities, be they for K-12 or higher education, the safety and health of inhabitants are now renewed imperatives, mainly due to the threat of litigation."

Claims, counterclaims, and charges

Typical is the recent tale of the Orange County, Va., schools.

"An unfolding saga" is how R. Craig Wood, an attorney with McGuire Woods LLP in Charlottesville, Va., describes the efforts of his client, the Orange County school board. Wood said the district discovered a contractor had not completed the roof of a new middle school on time, and because of delays the external sheathing began to show significant mold growth.

The district directed the contractor to remove the moldy material. The contractor hired an expert to do the work, then billed the school district. The school district then promptly submitted a claim to the builder's risk insurance carrier, arguing that the mold constituted damage to the structure, and there was no specific mold exclusion in the insurance policy. The insurer denied the claim. So the school district sued the insurer, asking the court to rule that the mold loss was covered by the policy. As of August, that lawsuit

was still pending, and the building did not open in time for school this year. The district hopes for an October opening, but in the meantime students have been moved to another school.

If air-quality tests show mold growth beyond accepted levels, the district could require replacement of the cleaned (remediated) sheathing. Cost: \$1.5 million.

"God only knows where that could go," Wood says. "It is all complex and expensive, but given the proliferation of mold claims, we feel that we have to demand a mold-free building or face the risk of lawsuits in the future."

Claims, counterclaims, charges, settlements, insurance complications, and concerns from parents, students, and staff are confronting other districts as well, many of which have paid piles of cash to fix their schools after mold was discovered. In Yuma, Ariz., the cost to clean up a school mold problem was \$5 million; in Bedford County, Fla., the price tag was \$1.6 million; in Saline, Mich., it was \$500,000.

In one of the largest such incidents, District 303 in Kane County, Ill., spent more than \$28 million on mold cleanup, renovation, and repair work at St. Charles East High School. And the fallout's not over: A judge ruled in July that teachers cannot sue the district for damages related to health complaints because those claims are a workers' compensation is-

sue.

Teachers complained about health-related problems at the school for more than 10 years before mold was found growing behind classroom walls, in ceiling tiles and cabinets, and underneath kitchen sinks. The discovery led to the school's closing in March 2001; it reopened in August 2002. Claims by students and contracted employees, such as cafeteria workers, remain part of a lawsuit against the district.

Confronting the community fallout

Ironically, one school district is even benefiting from mold. The Los Angeles Unified School District voted in May to buy the city's former Department of Water and Power building for \$37 million. The price tag dropped \$13 million after mold was found in the building last year.

Of course, Los Angeles also is spending more than one-quarter of a billion dollars on what has been called the most expensive school building project in the nation's history: the Belmont Learning Center. The proposed facility is directly above a former oil field, and concern about toxic pollutants led the district to abandon the project in 1997. The project was later revived, and other problems were found; this past spring, the school board voted to spend another \$111 million to complete it. The most recent "final" price tag is estimated at \$286 million.

Much more common than these high-cost cleanups,

however, are cases of community concern or even outrage, the direct result of poor crisis communications strategies on the school district's part.

Kathleen King removed her daughter from an elementary school in Westborough, Mass., in 1999, after the girl experienced seizures, chest pains, skin rash, and severe headaches. In February 2003, when some of the same symptoms returned, King again removed her now fourth-grade daughter from another school in the Westborough district.

King told the Boston Globe that her daughter is very sensitive to building-related illnesses. But King, other parents, and one of the school district's school committee members were particularly incensed at what they saw as the district's poor judgment in inadequately making public an environmental report completed last year that revealed the growth of toxic mold on ceiling tiles in two classrooms, including the one used by King's daughter.

School district officials said that after they saw the report they immediately ordered a thorough remediation of the building, which then received a clean bill of health. They said the report was in fact public. The parents replied that they knew nothing of it. The district's superintendent told those gathered at a school committee (school board) meeting that he would never put the community's children in harm's way.

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Charges flew. Passion reigned. It was just the kind of uproar that litigation-wary districts hope to avoid.

"The best way to minimize liability is to make sure you have good, factual information, then share that information with the public," says Edwards, the North Carolina attorney who advises districts on environmental issues. "A lot of suits have as their beginnings people finding out this information not directly from the schools, but from the press or in some other way, especially if parents or staff feel lied to. I tell school districts to be proactive, and to make sure teachers, students, staff, and the community are informed."

One place to start, Edwards says, is with teachers, who should be involved not only when problems are discovered, but long before.

"They know their classrooms," he says. "Encourage them to watch and pay attention to ceiling tiles, condensation, and other issues, and to report what they observe."

Strengthening community relations is one way to be ready in case of a bad environmental or indoor air quality report. Another is to have better procedures in place for hiring and dealing with outside experts.

Increased focus on air quality in schools and throughout the building and architecture

industries has inspired a new pack of products and services, including better testing tools and techniques and "breathable" construction materials that aid ventilation. A side effect of this burgeoning marketplace is the proliferation of questionable products and experts. A hot topic among school facilities professionals is how to spot charlatans knocking on school district doors, offering services or products geared to making a fast buck, especially at moments when schools might be reeling from recent bad news.

Greg Baker, senior associate at AMEC Earth and Environmental in Oregon, has seen how some school districts get it right and others get it wrong. Baker, an industrial hygienist and indoor air quality practitioner, advises school leaders to educate themselves about air quality and building hazards. And then, he says, be quite discerning when a self-professed expert comes knocking.

One school district Baker worked with had been approached by a vendor offering a chemical fumigation of one of its mold-infested buildings for \$75,000.

"I told the school district that fumigating the building does not do anything for mold," Baker says. "It can't kill fungi. And why would you want to introduce toxic chemicals into the school environment?"

For instance, certain biocidal cleanup agents are considered pesticides, and some states require that

only registered pesticide applicators use these products. The Environmental Protection Agency recommends making sure anyone applying a biocide is properly licensed. Other products, such as fungicides developed for outdoor use, should never be used indoors, the EPA urges. Whatever you use, ventilate the area. And thoroughly check out the company you hire to do the job.

"There are two-day courses out there—you take a test, boom, you're certified," says Mark Goldman, senior air quality scientist at Engineering and Fire Investigations in Andover, Mass. "But two-day programs are better than nothing."

How districts are dealing with mold

One positive trend is using district Web sites to keep the community informed on construction issues. That was the strategy in the Madison (Wis.) Metropolitan School District when the district had its first major mold problem. Remediation is thoroughly documented on a dedicated page of the district Web site.

Students and staff at Madison's Chavez Elementary School complained of upper respiratory problems soon after the new building opened. The district discovered what Doug Pearson, Madison's director of building services, calls a "gross contamination" of mold and decided to shut the school, which was closed from November 2001 to September 2002.

"It cost \$2 million to remediate—\$3 million if you count the cost of busing the students to other schools," he says. The district was forced to replace all the walls down to the metal studs in the brand new building.

"We embarked on a process that involved a lot of communication," Pearson says. In addition, the district rewrote its design and construction specifications to include requirements that builders keep facilities moisture free during construction. The district now uses moisture-free wall panels, which Pearson says is only marginally more expensive. The district also inspects ongoing construction projects more thoroughly and takes any IAQ complaint or report of collecting condensation more seriously.

"It starts internally, having the school board and superintendent understand that we need two years for a building this size," Pearson says. "Any compression of that schedule can lead to trouble." The contractor for the elementary school fell behind schedule, which led to sloppy work, Pearson says. The district settled with the contractor, but some Madison teachers still have unresolved workers' compensation claims for health problems they say were caused by the infected building.

"Indoor air quality has been a problem for a while, but it just did not get the attention it is getting now," says Barbara Worth, assistant director of public relations and

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policy at the Council of Educational Facility Planners, a national group based in Arizona whose members plan, design, construct, equip, and maintain K-12 school buildings.

Worth credits the EPA with offering schools more assistance in these areas in recent years. The EPA's Indoor Air Quality Tools for Schools program offers help to districts seeking to tackle IAQ issues. The program also recognizes school districts that have made significant improvements in air quality. This month, EPA is holding its fourth annual Indoor Air Quality Tools for Schools National Symposium in Washington, D.C.

Among the districts recognized by the EPA in 2002 for excellence in indoor air quality improvements is the Huber Heights (Ohio) City Schools. The district organized and trained IAQ teams in each building and implemented several low-cost improvements, such as installing ventilator filters to capture more contaminants; using antibacterial tablets to inhibit mold and mildew growth in heating, ventilation, and air-conditioning coils; removing carpet and installing tile; fixing or replacing exhausts and vent fans; and replacing spray pesticides with baits and traps for better pest manage-

ment.

"Schools have to strike a balance," says Goldman. "There is still carpeting going into schools, because schools have to account for acoustic issues in classrooms. But there are ways to make smart decisions and compromise. Maybe schools only put carpeting on floors above the first floor, since first floors are more susceptible to moisture. These issues are not going away. And there continue to be schools out there that are being built improperly."

Vulnerable to Mold

Older, dilapidated schools are vulnerable to mold infestation, but—for a variety of reasons—newer schools are often more vulnerable.

"Older school buildings are too often just built better," says Mark Goldman, senior air quality scientist at Engineering and Fire Investigations in Andover, Mass. Goldman has worked with at least 40 school districts on air-quality and mold issues.

Other sources of vulnerability include air conditioners, which are key sources of moisture-related maintenance problems such as mold. Poor ventilation is also a culprit. Since the 1970s energy crisis, more schools have been built airtight. The resulting poor ventilation means moist air settles and can prompt mold growth. And the wallboard and carpeted floors that replace plaster and wood in newer schools are prob-

lematic as well, since they soak up moisture. While the most common types of mold are not hazardous, some are blamed for headaches and respiratory problems. Some molds, such as *Stachybotrys chartarum*, can produce toxins. The Environmental Protection Agency and the Centers for Disease Control report that little research has been done on the threat of limited exposure to airborne mold spores. Information on "ingestion exposure" is much more abundant. A wide range of health effects has been reported in people who ate moldy foods, including damage to the liver and nervous system.

But researchers do understand that people with weakened immune systems might be more vulnerable to infections after repeated exposure to certain molds. — C.C.

