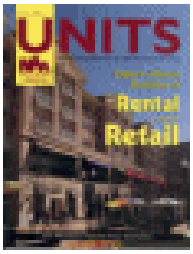

MOLD LIABILITY: PROTECT YOUR RESIDENTS AND YOUR COMMUNITIES THROUGH RESPONSIBLE RESPONSE.

Units | September 1, 2001 | MCDERMOTT, JOHN; VEERAPANENI, RADHIKA
Words 1521 ISSN 0744-1681

It's important for apartment owners and managers to work with their residents to assess mold risks and respond reasonably to those risks and any instances of mold. Not only will you improve your residents' quality of life, but your response can be your best defense in court.

MOLD infestation and litigation have seize the rental housing industry's attention in recent months. Nothing seems to focus our thoughts like bad publicity and big judgments. Yet many responsible owners and managers have dealt successfully with similar property issues for years. A combination of education, training, risk assessment and reasonable responses will serve us all well in this latest challenge.

Education

Fungus is present everywhere in our environment without a threat to health or property. Even in our homes, mold does not necessarily present a health threat. Molds are common fungi. They are dependent on factors including temperature (above 40 degrees Fahrenheit and below 100 degrees Fahrenheit), a nutrient base (such as wood or ceiling tiles) and, most importantly, moisture. In these conditions, molds thrive and occasionally result in property damage to households and adverse health effects to residents. In certain individuals, exposure to specific molds may result in allergic reactions, asthma and **other serious health problems.**

There are certain technologies available that can contribute to the detection of mold in residences. One method is to use the air-sampling techniques available, although these do not always result in the most accurate readings. These tests of indoor air quality can detect certain species of mold, but are not foolproof. There are also laboratory-sampling techniques available that may help to determine the level of contamination. These samples are evaluated to identify the particular contaminants within the environment. However, these techniques only identify existing problems. The better course is prevention when possible. Contamination can best be prevented by monitoring the moisture within the environment, and by maintaining clean surfaces and promoting proper air circulation.

NAA/NMHC have been in the forefront of education on this issue. NAA/NMHC's member-only White Paper on Mold has been available since January 2001. (For more information about the mold white paper, please contact Michelle Mathis at 703/518-6141, Ext. 140, or michelle@naahq.org.) This paper is periodically revised and it is an excellent resource for apartment managers and owners to learn how to prevent and, if necessary, dean up mold contamination. Some of the best attended seminars and meetings at NAA's 2001 Education Conference and Exposition in Las Vegas were on mold prevention, remediation and litigation. The course materials and audiotapes of the seminars are available through NAA. (Contact Jeremy Figoten at 703/518-6141, Ext. 130, or jeremy@naaq.org.) NAA has also prepared a Mold Action Kit

that contains additional briefing material. Finally, NAA is revising our Certified Apartment Maintenance Technician (CAMT) curriculum to include segments on water intrusion and how to deal with mold.

Risk Assessment

There are certain steps both residents and managers can take to reduce mold. The question is when does the responsibility shift from the resident to the property manager? We have learned from years of premises liability cases that courts will determine owner/manager liability by examining the reasonableness of their responses to a foreseeable risk. We shall begin with an assessment of risk.

As described above, mold needs moisture, nutrients and a receptive temperature range. Leaving aside the problems caused by catastrophic issues like flooding, some properties are more susceptible to mold than others. Roof and exterior wall maintenance becomes increasingly important in these areas. Well-maintained residences are less susceptible to mold infestation than those where cleaning is an afterthought. A failure to dean surfaces will contribute to the growth of mold in these units. Student housing properties are an example where residents may spend less time cleaning their apartments. (EQ: Is there any liability in pointing out a specific group like students?) Therefore mold infestation could be more common.

Similarly, there are certain appliances that may also contribute to the problem. One of the most common are oversized air conditioners, which do not effectively remove moisture from the air. Improperly cycling heating, ventilation and air conditioning (HVAC) systems, which enhance humidity, can also contribute to the problem. Another is the placement of furniture within a residence in order to remove obstructions to vents and air-filtering systems. While these methods are not absolute, they do contribute to the prevention of mold and relate to the evaluation of responsibility that could fairly be placed on the resident as well as the property owner.

Testing indoor air quality is expensive and perhaps unnecessary. Current Environmental Protection Agency (EPA) publications do not recommend testing. A physical survey for visible evidence of mold or potential water intrusion is an appropriate first step. Air quality testing should be considered where intermediate steps have been proven unsuccessful and the property is faced with the need for a comprehensive remediation plan.

The Reasonable Response

I. The Role of the Property Owner

Property managers cannot ignore credible information that a problem exists whether it is mold infestation or building security. Unreasonable responses are the source of the largest verdicts reported in the media. Jurors are appalled and angry when they hear evidence that legitimate health concerns were ignored or minimized. In fact, the type of interaction between residents and managers is the single greatest factor for inflating a claim. **No judge has ever found the ostrich approach to be reasonable response to a foreseeable risk.**

A Delaware woman with chronic allergies and asthma won $811,000 for injuries suffered, from mold infestation of her apartment in New Haverford Partnership v. Stroot. Although the owner made attempts to remedy the problem, high levels of toxic mold were observed amid conditions of standing water with joists and drywall covered with mold. The woman made seven trips to the emergency room, spent nine days hospitalized as an inpatient and received intravenous steroids 12 times.

A reasonable response is a prompt, professional reaction to resident concerns. According to the EPA, mold growth must be addressed within 24 to 48 hours of the water intrusion. A well-maintained property with

trained maintenance personnel is the first defense. Although the appropriate reaction to a complaint will always vary with the circumstances, it is always important to communicate with the residents and document those communications.

Your response options may range from simply cleaning surfaces to contracting for mold remediation specialists. If you believe there is a serious mold problem, (e.g., deteriorated drywall or standing water) relocate the resident or terminate the lease. If the problem is less severe, make repairs, engage in preventive maintenance and educate the resident to prevent reoccurrence.

II. The Role of the Resident

The resident also has a responsibility to maintain conscientious treatment of the property. This duty should be specified in the lease agreement. Some courts have specifically found that residents have a duty to maintain their homes even in the absence of the specific lease provisions.

In Washington, a property owner made an insurance claim for mold damage under the vandalism clause in the policy in Bowers v. Farmers Insurance Exchange. The resident had constructed a makeshift greenhouse to grow marijuana, thereby creating an ideal climate for mold infestation. Both the owner and his agronomist resident made claims for damages. The judge upheld the owner's claim and denied the resident any recovery because his conduct had created the problem. The court awarded the owner insurance costs due to the vandalism of the resident. In this extreme case, the court recognized that the resident's own actions barred his claim for damages.

In a Connecticut case, a resident reported mold damage to her apartment home yet refused to properly clean surfaces or use the dehumidifier supplied by the property manager in Shaw v. Gentry. The court reasoned that the resident's own negligence barred her recovery, and established that a resident has a duty to mitigate damages in certain instances. The court found this to be a risk the resident was aware of, that she contributed to the problem and therefore was denied compensation. Essentially, these instances illustrate situations that help to determine the resident's "property management" responsibility.

Conclusion

Educate and train onsite staff to recognize mold in apartment homes. Pay particular attention to these areas in preparing units to lease. Educate your residents to understand the importance of clean surfaces and ventilation to discourage the growth of potentially harmful mold. This can be accomplished through community newsletters or other communications.

Assess your risk. What is the likelihood of water intrusion on your properties? Do your residents understand the role and responsibility to maintain clean homes? Have them acknowledge this responsibility in your lease. **If a resident makes a credible health complaint as a reaction to mold, respond with courtesy and sensitivity. Investigate promptly and take appropriate action.**

John McDermott is NAA's General Counsel and partner at the law firm of Hill, Estill and Hardwick in Washington, D.C. Radhika Veerapaneni is a law student at Syracuse University. Special thanks to Eileen C. Lee, Ph.D., Vice President, Environment for the NAA/NMHC Joint Legislative Program for her contribution and review of this article.

NAA Amicus, submitted into the Abad Case, August 31, 2009, citing to the US Chamber of Commerce:

> **"In a report entitled, 'A Scientific View of the Health Effects of Mold', a panel of scientists, including toxicologists and industrial hygienists stated that years of intense study have failed to produce any causal connection between exposure to indoor mold and adverse health effects.' U.S. Chamber of Commerce, A Scientific View of the Health Effects of Mold (2003**)"

1) US Chamber of Commerce "Scientific View of the Health Effects of Mold (2003) with listed authors of Veritox owners, Bruce Kelman, Coreen Robbins (Abad Case defense expert witnesses) and Brian Hardin; along with non-VeriTox owner: Andrew Saxon MD, UCLA. Quote:

> **Thus the notion that "toxic mold" is an insidious secret "killer" as so many media reports and trial lawyers would claim is "Junk Science" unsupported by actual scientific study. "A Scientific View of the Health Effects of Mold" by the US Chamber Institute for Legal Reform (ILR) & Manhattan Institute Center for Legal Policy (CLP) (2003).**

Deposition of Bruce Kelman, July 22, 2008 (Page 261)

Q And what was it -- what was it meant by your entry here "write article"?
A It meant we were writing the article.
Q The Manhattan Institute report?
A That was the only -- yes, that was the only article we wrote for them.
Q And to write that article, did you do any independent research other than just look at what you already had in the ACOEM statement?

A No. It was the same science; there wasn't any need to.

"A Scientific View of the Health Effects of Mold" (2003) US Chamber ILR & Manhattan Institute CLP (Page 24)

> Thus, the notion that "toxic mold" is an insidious, secret "killer," as so many media reports and trial lawyers would claim, is "junk science" unsupported by actual scientific study.

By Bryan D. Hardin, Ph.D., Andrew Saxon, M.D.,
Coreen Robbins, Ph.D., CIH, and Bruce J. Kelman, Ph.D., DABT

Position paper The medical effects of mold exposure

2006 American Academy of Allergy, Asthma and Immunology doi:10.1016/j.jaci.2005.12.001

Robert K. Bush, MD, FAAAAI, a Jay M. Portnoy, MD, FAAAAI ,b Andrew Saxon, MD, FAAAAI, c Abba I. Terr, MD, FAAAAI, d and Robert A. Wood, MDe Madison, Wis, Kansas City, Mo, Los Angeles and Palo Alto, Calif, and Baltimore, Md

> "Thus we agree with the American College of Occupational and Environmental Medicine evidence-based statement… "

Reference:
4. ACOEM Council on Scientific Affairs. American College of Environmental and Occupational Medicine position statement. Adverse health effects associated with molds in the indoor environment. Elk Grove Village (Ill): ACOEM; 2002.

Adverse Human Health Effects Associated with Molds in the Indoor Environment

This ACOEM statement was prepared by Bryan D. Hardin, PhD, Bruce J. Kelman, PhD, DABT, and Andrew Saxon, MD, under the auspices of the ACOEM Council on Scientific Affairs. It was peer-reviewed by the Council and its committees, and was approved by the ACOEM Board of Directors on October 27, 2002. Dr. Hardin is the former Deputy Director of NIOSH… Dr. Saxon is Professor of Medicine at the School of Medicine, University of California at Los Angeles.

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POLICIES & POSITION STATEMENTS

Adverse Human Health Effects Associated with Molds in the Indoor Environment

In single-dose *in vivo* studies, *S. chartarum* spores have been administered intranasally to mice[31] or intratracheally to rats.[76,77] High doses (30 x 10^6 spores/kg and higher) produced pulmonary inflammation and hemorrhage in both species. A range of doses were administered in the rat studies and multiple, sensitive indices of effect were monitored, demonstrating a graded dose response with 3 x 10^6 spores/kg being a clear no-effect dose. Airborne *S. chartarum* spore concentrations that would deliver a comparable dose of spores can be estimated by assuming that all inhaled spores are retained and using standard default values for human subpopulations of particular interest[78] – very small infants,† school-age children,†† and adults.††† The no-effect dose in rats (3 x 10^6 spores/kg) corresponds to continuous 24-hour exposure to 2.1 x 10^6 spores/m^3 for infants, 6.6 x 10^6 spores/m^3 for a school-age child, or 15.3 x 10^6 spores/m^3 for an adult.

If the no-effect 3 x 10^6 spores/kg intratracheal bolus dose in rats is regarded as a **1-minute administration (3 x 10^6 spores/kg/min), achieving the same dose rate in humans (using the same default assumptions as previously)** would require airborne concentrations of 3.0 x 10^9 spores/m^3 for an infant, 9.5 x 10^9 spores/m^3 for a child, or 22.0 x 10^9 spores/m^3 for an adult.

In a repeat-dose study, mice were given intranasal treatments twice weekly for three weeks with "highly toxic" s. 72 S. chartarum spores at doses of 4.6 x 10^6 or 4.6 x 10^4 spores/kg (cumulative doses over three weeks of 2.8 x 10^7 or 2.8 x 10^5 spores/kg).[79] The higher dose caused severe inflammation with hemorrhage, while less severe inflammation, but no hemorrhage was seen at the lower dose of s. 72 spores. Using the same assumptions as previously (and again ignoring dose-rate implications), airborne S. chartarum spore concentrations that would deliver the non-hemorrhagic cumulative three-week dose of 2.8 x 10^5 spores/kg can be estimated as 9.4 x 10^3 spores/m^3 for infants, 29.3 x 10^3 spores/m^3 for a school-age child, and 68.0 x 10^3 spores/m^3 for adults (assuming exposure for 24 hours per day, 7 days per week, and 100% retention of spores).

The preceding calculations suggest lower bound estimates of airborne S. chartarum spore concentrations corresponding to essentially no-effect acute and subchronic exposures. Those concentrations are not infeasible, but they are improbable and inconsistent with reported spore concentrations. For example, in data from 9,619 indoor air samples from 1,717 buildings, when S. chartarum was detected in indoor air (6% of the buildings surveyed) the median airborne concentration was 12 CFU/m^3 (95% CI 12 to 118 CFU/m^3).[80]

Despite its well-known ability to produce mycotoxins under appropriate growth conditions, years of intensive study have failed to establish exposure to S. chartarum in home, school, or office environments as a cause of adverse human health effects. Levels of exposure in the indoor environment, **dose-response data in animals, and dose-rate considerations suggest that** delivery by the inhalation route of a toxic dose of mycotoxins in the indoor environment is **highly unlikely at best, even for the hypothetically most vulnerable subpopulations.**

ACOEM References To Dr. Carol Rao's Mechanistic Work, to which Bruce and Brian applied their extrapolations:

> 76. Rao CY, Brain JD, Burge HA. Reduction of pulmonary toxicity of Stachybotrys chartarum spores by methanol extraction of mycotoxins. Appl Environ Microbiol. 2000;66:2817-21.
>
> 77. Rao CY, Burge HA, Brain JD. The time course of responses to intratracheally instilled toxic Stachybotrys chartarum spores in rats. Mycopathologia. 2000;149:27-34.
>
> (77). " We have demonstrated that a single, acute pulmonary exposure to a large quantity of Stachybotrys chartarum spores by intratracheal instillation causes severe injury detectable by bronchoalveolar lavage. The primary effect appears to be cytotoxicity and inflammation with hemorrhage. There is a measurable effect as early as 6 h after instillation, which may be attributable to mycotoxins in the fungal spores. The time course of responses supports early release of some toxins, with the most severe effects occurring between 6 and 24 h following exposure. By 72 h, recovery has begun, although macrophage concentrations remained elevated"
>
> (76.) "We provide evidence that there is a dose-related association between an acute exposure to toxin-containing S. chartarum spores and measurable pulmonary responses. The consequences of low-level chronic exposure remain to be investigated, **as does the relevance of the rodent data to human exposure.**"

4

Toxic Effects of Fungi and Bacteria

Although a great deal of attention has focused on the effects of bacteria and fungi mediated by allergic responses, these microorganisms also cause nonallergic responses. Studies of health effects associated with exposure to bacteria and fungi show that respiratory and other effects that resemble allergic responses occur in nonatopic persons. In addition, outcomes not generally associated with an allergic response—including nervous-system effects, suppression of the immune response, hemorrhage in the mucous membranes of the intestinal and respiratory tracts, rheumatoid disease, and loss of appetite—have been reported in people who work or live in buildings that have microbial growth. This chapter discusses the available experimental data on those nonallergic biologic effects. It first discusses the bioavailability of the toxic components of fungi and bacteria and the routes of exposure to them and then summarizes the results of research on various toxic effects—respiratory, immunotoxic, neurotoxic, sensory, dermal, and carcinogenic—seen in studies of microbial contaminants found indoors. It does not address possible toxic effects of nonmicrobial chemicals released under damp conditions by building components, furniture, and other items in buildings; chemical releases from such materials are discussed in Chapter 2. Except for a few studies on cancer, toxicologic studies of mycotoxins are acute or short-term studies that use high exposure concentrations to reveal immediate effects in small populations of animals. Chronic studies that use lower exposure concentrations and approximate human exposure more closely have not been done except for a small number of cancer studies.

IN THE SUPERIOR COURT OF THE STATE OF ARIZONA
IN AND FOR THE COUNTY OF PIMA
APRIL ABAD, et al.,

Plaintiffs,

vs.) Case No. C-20024299

CREEKSIDE PLACE HOLDINGS,
L.L.C., et al.,

Defendants.
Friday, April 14, 2006
Tucson, Arizona
OFFICIAL COURT REPORTER'S TRANSCRIPT
FRYE HEARING - TENTH DAY
BEFORE: THE HON. JOHN E. DAVIS, JUDGE
APPEARANCES:
For the Plaintiffs:
HAROLD L. HYAMS, Esq.
Harold L. Hyams and Associates, P.C.

For the Defendants Creekside Place Holdings, L.L.C. and
Wasatch:
CYNTHIA T. KUHN, Esq.
Rusing and Lopez, P.L.L.C.

VAN G. HONEMAN, RDR
OFFICIAL COURT REPORTER
Pima County Superior Court
Tucson, Arizona
Certified Reporter #50335
I N D E X
WITNESS FOR THE DEFENDANTS:
BRUCE J. KELMAN, Ph.D.

* * * * *

Q. Okay. And how does this publication A-L relate to the IOM report which we have had prior testimony and has been marked as Defendants' Exhibit X?

A. Well, there are --

MR. HYAMS: Objection, relevance.

THE COURT: Overruled.

A. There are two completely different groups that looked at potential effects and different publications. Temporally, they are different also.

Q. (By Ms. Kuhn) Okay. Which one came first?

A. If I can refer to it as the A.C.O.E.M. position statement came first?

Q. Okay. So A-L came first and then the IOM came after?

A. Yes.

Q. And how -- are the two -- are the position of the A.C.O.E.M. and A-L consistent with the position taken in the IOM report regarding whether or not mold can cause illnesses in humans?

A. The positions are nearly identical. The IOM report is -- covers a much broader scope.

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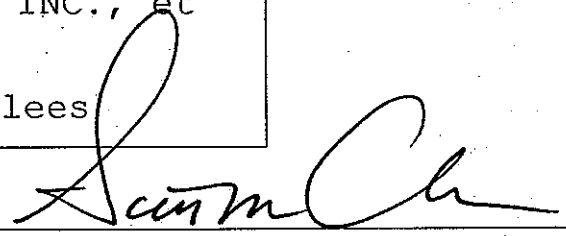
COURT OF APPEALS
STATE OF ARIZONA
DIVISION ONE

TRICIA MASON, et al., Plaintiffs-Appellants, v. WASATCH PROP. MGMT., INC., et al. Defendants-Appellees	2 CA-CV No. 2008-0162 2 CA-CV No. 2008-0165
KAITLYN MORRIS, et al., Plaintiffs-Appellants, v. WASATCH PROP. MGMT., INC., et al. Defendants-Appellees	Cause Nos. C20035581 consolidated with C20041766; C20024299 consolidated with C20024542
APRIL ABAD, et al., ALICIA STEWART, et al. Plaintiffs-Appellants, v. WASATCH PROP. MGMT., INC., et al. Defendants-Appellees	**BRIEF OF AMICUS CURIAE NATIONAL APARTMENT ASSOCIATION**



Scott M. Clark, Esq.
Law Offices of Scott M. Clark, P.C.
3008 North 44th Street
Phoenix, Arizona 85018-7206
Telephone: 602-957-7877
Arizona Bar No. 6759
scott@scottclarklaw.com
Attorney for Amicus Curiae

that exposure to mycotoxins (which can sometimes be produced by mold) is "causally related to symptoms or illness among building occupants." *Id.* at p. 647.

In a report entitled, *A Scientific View of the Health Effects of Mold*, a panel of scientists, including toxicologists and industrial hygienists stated that years of intense study have failed to produce any causal connection between exposure to indoor mold and adverse health effects. U.S. Chamber of Commerce, *A Scientific View of the Health Effects of Mold* (2003) at p. 64 and p. 65. The report also concludes that in other than individuals with severely impaired immune systems, indoor mold is not a cause of infections, and "current scientific evidence does not support the idea that human health has been adversely affected by inhaled mold toxins in home, school, or office environments." *Id.* at p. 65. In fact, when speaking of their report, the authors note that "science has confirmed common sense" since mold is not some rare, exotic material but is everywhere, making up twenty-five (25) percent of the earth's biomass. The