DEFENSE CONSIDERATIONS IN MOLD LITIGATION:

INVESTIGATION, CAUSATION, MITIGATION & REMEDIATION

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These materials are intended to provide a general overview of the topic. The views expressed in the following pages are not necessarily those of the co-authors, Johnson & Condon, P.A. or their clients.

This is the second of a two - part article dealing with mold litigation issues. Part I provided an overview of mold, and discussed issues involved in personal injury claims which seek to causally link mold's presence and the claimant's medical condition. Part II, which appears in this issue of *Minnesota Defense*, discusses property damage considerations when mold is present in a building. Part II analyzes building integrity issues as part of the indoor air quality environment, remediation of mold-related damages, use of appropriate professionals, measure of damages, and spoliation of evidence, among other items.

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MOLD ISSUES IN PROPERTY CASES

The issues raised in property damage cases involving mold often create significant defense costs and large financial exposure to building managers, maintenance contractors, construction entities and other potential defendants in amounts far greater than personal injury cases. These claims are frequently driven by remediation "guidelines" and public (mis)perceptions about mold brought about in part by multi-million dollar bad faith verdicts in southern and coastal jurisdictions.[1]

The publicity surrounding mold has led many building owners and plaintiff counsel to perceive the mere presence of mold as a significant health risk to building occupants regardless of whether anyone has complained of personal injury. These perceptions often expand the scope of building repairs, and at times result in decisions to shut down the facility and relocate its occupants while repairs are performed. The significant costs incurred by owners to address their beliefs about mold then become part of their settlement demand in the ensuing litigation.

Defending a mold property damage case involves some of the traditional investigative strategies utilized in construction claims. Defense counsel can use these strategies as part of a forensic building investigation to identify moisture pathways and potentially responsible parties who may have caused the condition. In addition, an analysis of the legal and contractual relationships between the parties allows the practitioner to effectively evaluate the actual financial risk to their client.

However, relying solely on construction litigation strategies may leave defense counsel unprepared for the unique issues raised in mold cases. Thus, toxic tort defense strategies are also employed to counter the health risk misinformation associated with mold, and to rationally assess building occupant issues. In addition, mold property cases often involve specialized experts and processes in several disciplines to address the interplay between complex building systems, the indoor and outdoor air environments, and building occupants. These experts also assist counsel in assessing the proper scope of remediation as well as posi-

[1] *See, e.g., Ballard v. Fire Ins. Exch*, No. 99-05252 (Tex. Dist. Ct. June 2001)($32 million bad faith verdict); *Anderson v. Allstate* (E.D. Cal. 2001)($18 million punitive damages verdict for bad faith), *cited in* 6 Mealey's Emerging Insurance Disputes No. 12 (June 2001).

tions driven by diminished property value perceptions, publicity, and other unique considerations.

INVESTIGATING BUILDING INTEGRITY

Mold property damage cases typically begin with a moisture concern in the building. Moisture can enter the structure by penetrating the building "envelope" due to improper construction or repair (missing or inadequate flashing, roofing, drain tile, or moisture barriers); from weather (storms, floods, ice or snow accumulation); mechanical system failure (pipe break, HVAC leak, sprinkler malfunction); defective design of the building's structure, systems or materials; and simple neglect of the property (failure to caulk, change filters, empty drain pans, maintain sump pumps, etc.). Each of these can compromise the building's ability to control moisture and may result in a growth environment for the already existing, albeit inactive, mold to blossom.[2]

Failure to remediate (remove) a large mold colony can aggravate the mold condition and result in drywall crumbling, ceiling tiles coming loose, and, in rare cases, possible wall collapse. However, it is generally accepted that observable mold growth should be remediated to eliminate insidious deterioration of the building material on which it is found, and to avoid any realistic structural compromise. Thus, structural damage from mold is seldom an issue in a typical mold case. Instead, the focus is usually on moisture pathways and building system integrity, their relation to the indoor air environment and building occupants, and whether the remediation of the moisture and mold condition was appropriate under the circumstances.

Moisture Infiltration or Retention

The ability to properly drain and direct water is fundamental to building integrity, and is an important aspect of the defense investigation in a mold property damage case. Mold growth can be found in areas where stagnant water or moisture has accumulated, including ducts, humidifiers, drain pans, false ceilings and behind walls. Potential sources for moisture infiltration include damaged walls, ceilings and roofs, poorly constructed additions to a building, and leaking or broken pipes.[3] In contrast, properly designed and maintained buildings promote the drainage of water downward and away from the structure through such mechanisms as gutters and downspouts, backfill and grading, flashing, vapor barriers, weep holes, overhangs, and canopies, among others.[4] The forensic investigation in mold cases very often involves a thorough evaluation of these mechanisms in conjunction with building design documents to identify potential moisture pathways and their impact on the indoor air quality or mold condition at issue.

Ventilation and the Indoor Air Environment

Reduced building ventilation can be a significant factor in the development and proliferation of a mold-driven indoor air quality case. Two factors, one historic, and one construction-related, have interacted to make reduced air ventilation a typical cause of mold development, particularly when the moisture infiltration component is absent. These factors create some interesting finger-pointing when a claim is presented.

In the early and mid 1900's, buildings either had no air ventilation standards, or the standards were such that any perceived problems went unnoticed. However, just as the national highway speed limit was a victim of the 1973 Oil Embargo, regulators sought to save energy by reducing ventilation volumes in buildings. Simultaneously, other standards evolved to create new "airtight" buildings.[5] These standards were premised on an assumption that the inability to access outside air was a good thing, particularly in cities with air pollution concerns. However, today's airtight construction of homes and commercial buildings has played a role in facilitating indoor air quality concerns across the country.

In addition, deficiencies in heating, ventilating, and air conditioning (HVAC) systems can bring about indoor air concerns. HVAC problems such as improper ventilation can arise from the mechanical system's faulty design or construction, as well as improper maintenance or operation. Reduced ventilation can lead to increased humidity levels if not adequately compensated by efficiencies in the structure, or addressed in the design, construction, maintenance or

[2] *See* Lstiburek, Yost, and Brennan, *Mold: Causes, Health Effects and Clean-Up*, Building Science Corporation (2002)(on file with the authors)("Mold requires water. Mold is the result of a water problem.")

[3] *Id*.

[4] *See* Lstiburek, Joseph, *Moisture, Building Enclosures and Mold*, HPAC Engineering (December 2001)(on file with the authors).

[5] *See Guide For Planning School Construction Projects In Minnesota*, Part 4.04 (Rev. ed May, 1999), Minnesota Department of Children, Families & Learning (in the 1970s and 1980s, the design standard for the amount of fresh air that should enter occupied spaces was 5 cfm per person). *See also,* American Society for Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 1973, ASHRAE *Standard 62-73: Standards for Natural and Mechanical Ventilation*. New York.

operation phases of the building's life. It is these increased moisture levels which can promote mold growth.[6]

Other Possible Sources for Indoor Air Complaints

Most commercial and office buildings in use today contain various types of adhesive, carpeting, upholstery, manufactured wood products, copy machines, computers, pesticides, and cleaning agents. Each of these products contain varying levels of irritants or other contaminants which have no association with mold, but which may be a confounding agent involved with complaints of poor indoor air quality or allegations of a "Sick Building." In addition, while airtight building design has sought to eliminate the outdoor atmosphere from the structure, there remain many buildings where outdoor chemical contaminants contribute to indoor air complaints. For example, vehicle exhaust, odors from plumbing or septic systems, or nearby noxious operations can be sources of agents causing or contributing to the complaints rather than mold concentrations within the building.

It is vital for defense counsel to recognize that biological contaminants include not only mold, but bacteria, pollen, dander and viruses.

It is vital for defense counsel to recognize that biological contaminants include not only mold, but bacteria, pollen, dander and viruses. All of these biological contaminants have the potential to be present in a building, and their concentration levels can vary by time and location. A proper evaluation of building integrity should include an analysis of whether any of these additional contaminants may be a more accurate origin of the complaints. Sorting out the causes for alleged poor indoor air quality can be complex, and often requires an expert to assist in the evaluation.

ASSESSING THE MOLD CONDITION

Several groups involved with indoor air quality issues in recent years have proposed guidelines for investigating and assessing questionable buildings. Some of these guidelines have become more accepted as mold claims have proliferated.

Investigative Protocol

The American Conference of Governmental Industrial Hygienists (ACGIH) has developed the "Bioaerosols: Assessment and Control" document that provides a comprehensive approach to conducting a fungal building assessment.[7] The ACGIH protocol includes the following phases:

- Phase I – Data Collection. Gather basic information about the building, including health information regarding potential complaint history of the building as it relates to indoor air quality problems and history of water intrusion or moisture problems.
- Phase II – Formulation of Theory. Based on the initial data collection, initial theories can be developed to help determine/identify fungal problems, moisture intrusion and health concerns.
- Phase III – Testing of Theory. Site visits, physical evaluation of the building, health surveys and environmental testing are all critical components of a comprehensive assessment. This phase will help the investigator either confirm or reject the theories developed in Phase II. Critical components of this phase include:
  - Inspection of HVAC systems to determine if the systems are a potential source or a pathway for potential exposure.
  - Ambient air quality testing may also be valuable at this stage; if so, testing should include temperature, relative humidity, carbon dioxide and pressure differential between different areas.

Locally, Minnesota's public buildings, particularly schools, have been the subject of indoor air quality regulation. For example, as part of the 1997 Omnibus Education Act school districts seeking health and safety monies are required to create "a plan to monitor and improve indoor air quality."[8] In addition, school districts must include plans for hazardous substance removal or encapsulation, polychlorinated biphenyl cleanup and disposal, testing and mitigation of radon produced hazards, and modifications to existing facilities to limit personal exposure to hazardous substances presenting a significant risk to staff or student health and safety as a result of foreseeable use.[9]

[6] *See Molds in the Environment*, Centers for Disease Control and Prevention (CDC), National Center for Environmental Health (NCEH) – Factsheet (April 3, 1997).

[7] Macher, ed., *Bioaerosols: Assessment and Control*, Publication #3180, ISBN: 1-882417-29-1, (1999).

[8] *See* Minn. Stat. § 123B.57.

[9] *Id*.

Mold and Fungal Testing

Depending on the facts, various testing procedures to determine the presence, type and extent of moisture or mold may be required to quantitatively document contamination in building materials and furnishings. Simple tests involving devices such as a moisture meter, or complex testing of the air, bulk material or settled dust, are but some of the possible tests available for the investigative process. However, defense counsel must recognize that some situations do not require extensive testing.[10] In many instances determining the presence and extent of mold in a building can be accomplished by careful visual inspection.

If sampling is deemed required, it is important to develop a plan that identifies the reason for the testing as well as the testing type and protocol to be used. This should be accompanied with quality assurance and control during the entire testing process. Following these steps will ensure collection of valuable data to help identify whether a potential mold/fungal problem exists, and, if so, will support the development of a possible remediation plan.

Some of the key factors involved in ensuring quality testing include:

- Documentation of the environmental conditions during testing;
- Justification/explanation of the type of media to be used for analysis;
- Collection and analysis process, if appropriate, and control samples;
- The specific locations of testing along with the time and date of testing;
- The person/organization responsible for the analysis and their qualifications;
- Analytical methods used for the testing/analysis; and
- Standards and guidelines to which the results will be compared.

MOLD CONTROL AND REMEDIATION

State and federal agencies have been active in developing guidelines for the control and remediation of fungal contamination.[11] In March, 2001 the United States Environmental Protection Agency published "Mold Remediation in Schools and Commercial Buildings," a booklet which provides insight on recommended remediation procedures depending on the scope of the mold presence.[12] The document underscores the key to resolving mold contamination is to not only remove the fungal growth, but also to resolve the moisture problem.

Due to the often complex nature of mold cleanup, it is important that professionals experienced in this field develop customized plans and techniques. Indoor air and mold remediation techniques have been evolving over the past several years.[13] What was once common practice for water extraction and drying out a building has been replaced with "guidelines" plaintiffs often cite as industry "standards" or "regulations." Documents such as the EPA Guidelines are neither; they are simply recommendations without any regulatory enforcement.

Proper mold remediation utilizes a logical and common sense approach to the specific building conditions presented rather than relying solely on general commentary. For instance, testing and remediation procedures will likely be different if the structure involved is an assisted care facility or elementary school as compared to a commercial warehouse or plant. The type of construction materials and systems within the building, whether the building will be occupied during remediation, and even the time of the year the work is to be done, all must be considered in developing appropriate remediation measures.

Remediation Controls

Control strategies are important to limit building occupant exposure, cross contamination and worker exposure. Depending on the quantity and extent of fungal growth, the EPA recommends the following approaches be considered:

[10] *See* Yost, Lstiburek, and Brennan, *Mold Testing*, and *Mold: Causes, Health Effects and Clean-Up*, Building Science Corporation (2002)(on file with the authors).

[11] *See e.g.*, New York City Department of Health: Guidelines on Assessment and Remediation of Stachybotrus atra in Indoor Environments. New York City (1993); New York City Department of Health: Guidelines on Assessment and Remediation of Fungi in Indoor Environments. New York City (2000)(available at www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html (accessed December 12, 2002)); United States Environmental Protection Agency, Mold Remediation in Schools and Commercial Buildings. (March, 2001)(available in Adobe Acrobat format at the EPA's Website at www.epa.gov/iaq/molds/graphics/moldremediation.pdf (accessed December 12, 2002)).

[12] U.S. Environmental Protection Agency, *Mold Remediation in Schools and Commercial Buildings*. (March, 2001).

[13] *See* Light, E.N., *Mold Remediation: How Complex Should it Be?* Presented at Mold Medicine & Mold Science. Wash. D.C. (May 14, 2002) (discussing mold control recommendations from 1980s to present)(on file with the authors).

Small Areas of Growth (up to 8 square feet):

- Clean up can be conducted by maintenance personnel;
- Basic training should be provided for cleaning, personal protection and health effects;
- Individuals performing the work should be free of medical conditions that can be exacerbated with exposure;
- Materials to be removed should be sprayed down with a 10% bleach solution to reduce dust (avoid using bleach on materials that can be corroded);
- Materials to be removed should be immediately placed in sealed plastic bags;
- Surrounding areas should be wet wiped;
- Materials should be disposed of in the regular waste stream;

Larger Isolated Areas (up to 30 square feet):

In addition to the methods described above, the following additional precautions should be taken:

- Construct local area containment using plastic sheeting;
- Utilize HEPA vacuum to place the containment under negative pressure;
- Materials should be double-bagged in 6-mil polyethylene.

Large Scale Remediation:

Due to significant concerns regarding exposure, it is important that the same techniques used for asbestos abatement be utilized during large-scale remediation projects. At a minimum, the following procedures should be followed:

- Personnel trained in hazardous materials should be used on all large-scale fungal remediation projects;
- The entire affected area should be sealed with two layers of polyethylene sheeting;
- The containment should be placed under negative air;
- Appropriate decontamination units should also be constructed for entry and exit into the affected area;
- HEPA vacuuming and wet wiping procedures should be utilized before tear down;
- All workers should use respiratory and personal protection;
- Air monitoring should be considered to ensure that cross contamination is not occurring.[14]

Personal Protection

In addition to various engineering controls used to limit exposure, appropriate personal protection is also recommended. As a general guide, the EPA recommends the following protection:

- Appropriate respirators based on the hazard and the engineering controls utilized. Half-face respirators with HEPA cartridges are commonly used during fungal abatement projects;
- Gloves, eye protection (especially if bleach or other disinfectants are used) should be provided;
- Full body suits should be worn for large-scale projects.[15]

Advanced Measures: Professional Services

Remediation of certain advanced mold problems should be undertaken only by qualified and experienced professionals. Several organizations have promulgated assessment and remediation guidelines. Examples of these organizations' guidelines include the Institute of Inspection, Cleaning and Restoration Certifications' IICRC S500 Standard and Reference Guide for Professional Water Damage Restoration, which provides detailed methods and procedures for restoration of buildings that have sustained water damage,[16] and the American Conference of Governmental Industrial Hygienists, Inc.'s Guidelines for the Assessment of Bioaerosols in the Indoor Environment.[17] Also, the guidelines issued by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) have been adopted by the State of Minnesota for HVAC systems and indoor air requirements.[18] ASHRAE 62-1989 establishes the IAQ-related standard for the design of heating, ventilating and air-conditioning (HVAC) systems. ASHRAE 62-1989 recommends a minimum of 15 cfm of outdoor air per person

[14] U.S. Environmental Protection Agency, *Mold Remediation in Schools and Commercial Buildings*. (March, 2001).

[15] *Id*.

[16] IICRC S500 Standard and Reference Guide for Professional Water Damage Restoration, Institute of Inspection, Cleaning and Restoration (2d ed. 1999).

[17] Guidelines for the Assessment of Bioaerosols in the Indoor Environment, American Conference of Governmental Industrial Hygienists, Cincinnati, OH (1999).

[18] *See* Minnesota Rule 7670.0130, Subpt. J (ASHRAE Standard 62-1989 Ventilation for Acceptable Indoor Air Quality incorporated by reference); Minnesota Rule 7670.0450 (ventilation systems must be designed to conform to ASHRAE 62-1989).

for offices (reception areas), and 20 cfm for general office space with a moderate amount of smoking. 60 cfm per minute per person was recommended for smoking lounges with local mechanical exhaust ventilation and no air recirculation. Subsequently, ASHRAE 62-1999, and ASHRAE 62-2001 have been passed to update the prior standard. However, the State of Minnesota has not changed its rules to reflect compliance with these later versions.

Locally, Minnesota environmental firms that perform investigation and remediation of mold and indoor air quality concerns have developed recommended guidelines in conjunction with university experts.[19]

THE NEED FOR EXPERTS

Mold property cases often originate from water losses involving construction issues. Construction counsel are experienced in retaining experts to determine the source of a building defect involved in the litigation. Some of these experts are invaluable in the defense of the mold property damage case as well. For example, a mechanical engineer, architect, HVAC contractor or plumbing contractor may be needed to identify internal moisture sources and pathways, the construction or design concepts of the building and its mechanical systems, and whether the work performed by a subcontractor or other entity was proper under the circumstances. Infiltration pathways and quality of work issues can be effectively addressed by experts such as architects, engineers, roofers and window installers, among others. Where maintenance was negligent or inadequate, an expert with ties to a building management association such as the American Association of Physical Plant Administrators may be of assistance to show poor maintenance practices. In addition, experts knowledgeable in damage calculations and residential or commercial appraisal may be appropriate if the case involves specialized damage analyses.

Certified Industrial Hygienists

In certain cases where there are difficulties determining the alleged source of the "contamination," additional experts may be needed to show the building (as opposed to the Plaintiff) is not "sick" or "ill" at all. For example, in order to show the absence of toxins, or to review the findings of the plaintiff's expert, defense counsel may wish to retain a Certified Industrial Hygienist (CIH) to test the building's air to confirm whether molds or other substances are airborne in the first place. The CIH may require the assistance of an Environmental Microbiologist, Microbiological Laboratory, or Mycologist to properly identify the mold and/or mycotoxin (if present). If suspect substances are found, the CIH can estimate the length of time the targeted exposures have been occurring, at what level and whether the exposures are elevated when compared to other environments.

The information obtained by the CIH can provide the medical expert (in the personal injury case) with the foundation needed to show the particular mold involved is not a source of the plaintiff's problems, either because the mold is not a cause of the plaintiff's condition, or because the dose is insufficient to cause the plaintiff's purported biologic response. In property damage cases, the CIH can help refute the owner's attempt to use inaccurate health risk assumptions to support large scale remediation or building closure. Where needed, moreover, the CIH can survey building occupants and evaluate prior complaint history to determine if others have experienced similar symptoms as the personal injury plaintiff, or any health issues cited by the building owner in a property case.

The Plaintiff's Failure to Retain Indoor Air Quality Experts

In some cases defense counsel may find the building owner, or other potential co-defendants, engaged in "self-help" to avoid the costs of employing the necessary experts to address indoor air quality issues. Depending on the facts involved, the absence of expert evaluation can support a formidable defense in a mold property damage case. An example of problems produced by self-help is seen in *County of DuPage v. Hellmuth, Obata & Kassabaum, Inc*.[20] The County brought a $6 million breach of contract suit against an architect, general contractor, and HVAC subcontractor for repairs and relocation costs involving a recently built courthouse abandoned after indoor air problems and 300 employees became ill. The jury found the County-building owner was responsible for the indoor air problems, in part because the County itself changed the ventilation system and used certain non-recommended anti-oxidants and anti-scalant polymers that volatilized and spread throughout the building. These unilateral actions severely limited the County's ability to recover its

[19] *See e.g.*, Quraishi, Arif, and Carlson, Neil, *Managing Water Infiltration Into Buildings: A Systemized Approach for Remediating Water Problems in Buildings Due to Floods, Roof Leaks, Potable Water Leaks, Sewage Backup, Steam Leaks and Groundwater Infiltration*, Institute for Environmental Assessment and University of Minnesota Division of Environmental Health and Safety (June 1, 2001).

[20] No. 92 L 1779 (19th Jud. Cir., Lake County, Ill.); *aff'd*, 698 N.E.2d 723 (Ill. App. Mar. 21, 1996)(unreported table opinion).

damages despite the architect's liability for the initial design and construction of the HVAC system.

Expert Selection Factors

When selecting experts, defense counsel should be guided by many of the considerations utilized in traditional liability matters. Some of these considerations include whether the company has experience in solving similar problems; the training and experience of the individuals who will be performing the analysis and remediation; the quality of the interview and proposal; the company's reputation among others in the industry and with previous clients; the company's record with governmental licensing and regulatory agencies; knowledge of local and national codes, regulations, and industry guidelines; the ability of the company to handle the scope of necessary work within the needed time frame; knowledge of local and regional climate and construction conditions; and costs.

IDENTIFY RESPONSIBLE PARTIES.

Whether a health hazard has been highlighted in a mold property damage claim, or whether a plaintiff in a personal injury case is actually ill, a fair focus on the salient issues requires an assessment of the entities or individuals that should be part of the claim or litigation process. As in traditional construction cases, defense counsel should perform an early and comprehensive assessment of potentially liable parties. Parties to consider include those typically involved in the building's design and construction such as the general contractor, construction manager, architect, design-build contractor, engineers, and mechanical or other subcontractors. Moreover, because building maintenance can become a significant liability issue in mold cases, the owner, building manager, maintenance contractors, and others associated with the ongoing care of the building also should be considered in assessing fault.

In addition to identifying potential parties, defense counsel should assess the contractual relationships and various insurance coverages between these parties. As in many construction cases, these issues often dramatically alter the client's exposure.

Despite the potential for adversarial relationships between co-defendants, these parties should not allow their differences to prohibit certain joint defense activities also seen in more typical construction cases. Prompt communication with possible co-defendants addressing the feasibility of a joint defense on certain issues (for example, the medical and remediation issues), and consideration of an informal information exchange can be of significant benefit in the long run.

MEASURING MOLD DAMAGES.

Recent state and federal regulatory agency publications describing "guidelines" for remediation raise the issue of whether these procedures will become the "standards" for mold remediation. Some states have recently enacted legislation regulating "toxic" mold.[21] Federal legislation on the subject has also been introduced.[22] As early as 1994, moreover, the federal OSHA office noticed its intent to adopt standards addressing indoor air quality in work environments. OSHA made a preliminary determination that "employees working in indoor work environments face a significant risk of material impairment to their health due to poor indoor air quality, and that compliance with the provisions proposed in this notice will substantially reduce that risk."[23] The standards were to apply to all indoor "non-industrial work environments."[24] The states and territories with their own OSHA-approved occupational safety and health plans, including Minnesota, must adopt a comparable standard within six months of the publication of a final federal standard. However, these standards have yet to be promulgated by OSHA.

If guidelines suggesting remediation and conduct in mold property damage cases become proscribed through regulation, the measure of damages in these cases might not be calculated in the traditional fashion. Instead, the measure may be more akin to that seen in fire or groundwater remediation cases where restoration to pre-damage levels is the measure, and not merely diminution in property value.

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[21] *See e.g.*, Toxic Mold Protection Act of 2001, Cal. Code Sec. 26100 et. seq. (2001)

[22] *See* H.R. 5040 *The United States Toxic Mold Safety and Protection Act* (107th Congress, 2nd Session). According to the website of the bill's sponsor, Congressman John Conyers, Jr., the Act "will mandate comprehensive research into mold growth, create programs to educate the public about the dangers of toxic mold, and provide assistance to victims. In addition, the Act will generate guidelines for preventing mold growth, establish standards for removing mold when it does grow, provide grants for mold removal in public buildings, authorize tax credits for inspection and/or remediation of mold hazards, and create a national insurance program to protect homeowners from catastrophic losses." www.house.gov/conyers/mold.htm.

[23] *See* Proposed OSHA Rule on Regulation of Indoor Air Quality, Health Effects of Poor Indoor Air Quality and Environmental Tobacco Smoke, Fed. Reg. No. 59:15968-1603 (April 5, 1994).

[24] *Id*.

Traditionally, the measure of damages for injury to a building which is not totally destroyed is, at the election of the plaintiff:

1) the difference in fair market value before and after the incident at issue; or

2) the cost of restoration.[25]

However, the amount recovered may be limited to the lesser of the two measures. If the cost of restoration does not return the building to its pre-incident fair market value, the plaintiff may recover the remaining difference in the fair market value between the pre-incident value and the post-repair value, but may be limited to a total of the difference in fair market value before and after the incident at issue.

Historically, where the cost of repair or restoration is not "economically feasible," the costs incurred are not the measure of damages.

Historically, where the cost of repair or restoration is not "economically feasible," the costs incurred are not the measure of damages.[26] However, because mold remediation can at times exceed the diminution of the building's value, plaintiffs in such situations might contend the measure of damages is the total amount expended to "remediate" the building (remove the fungal growth and eliminate the moisture source), regardless of whether the costs exceed the building's diminished value. Some states have allowed replacement or restoration costs as a measure of damages when diminution in market value is unavailable or unsatisfactory as a damage measure.[27]

It is important that defense counsel recognize the magnitude of potential liability that could arise if remediation costs become the measure of damages in mold cases. In the homeowners' context, for example, small losses once involving simple water extraction and limited sheetrock removal have become six figure demands for large scale remediation under negative air containment, demolition and replacement of walls and roofs, and new mechanical systems to improve air ventilation.

AN ACTIVE MOLD DEFENSE

Homeowners and commercial building owners are the typical plaintiffs in mold property damage cases. The owner may initially turn to its insurer to seek first party coverage for the loss under its all-risk policy. This can be problematic because more first party policies are listing mold as an excluded loss, even if another more proximate and efficient cause of the loss is involved in the claim. The Minnesota appellate courts recently waded into the issue, finding that mold damage may arguably be excluded even as a resulting loss in a typical homeowners' context.[28] Thus under the present state of the law an owner may easily find itself without a pool of funds to remediate the mold condition.

This may in turn prompt homeowners and commercial owners alike to look toward possible defendants for reimbursement of extensive remediation costs. Depending on the nature of the moisture infiltration, the list of possible targets might include, in a construction defect setting, the general contractor, construction manager, subcontractors, architects, design-builder, engineers, material suppliers, and sureties. Other situations might bring claims against building management or maintenance professionals, landlords, realtors, and mortgage lenders, among others. In addition, contractual indemnification arrangements may exist between one or more of the entities which, depending on state law, could have the effect of shifting the risk of the moisture infiltration and mold development to third parties.

Investigate the Building's History

In order to evaluate their client's possible exposure defense counsel should gather as much information about the structure and any infiltration problems experienced. An early assessment of all available information from the

[25] *See, e.g., O'Connor v. Schwartz*, 229 N.W.2d 511, 513 (Minn. 1975); *In re Commodore Hotel Fire & Explosion Cases*, 324 N.W.2d 245, 248 (Minn. 1982)(measure applied to real property).

[26] *See, e.g., Bartl v. New Ulm*, 72 N.W.2d 303, 306 (Minn. 1955).

[27] *See, e.g., Trinity Church in the City of Boston v. John Hancock Mut. Life Ins. Co.,* 502 N.E.2d 532, 536 (Mass. 1987); *Orndorff v. Christiana Community Builders,* 217 Cal.App.3d 683 (1990); *Heninger v. Dunn*, 101 Cal.App.3d 858, 864-65 (Cal. Ct. App. 1980); *Independent School District 441 v. Bunn-O-Matic Corp.*, No. C0-96-594 (Minn. Ct. App. 1996).

[28] *See e.g., Myers v. State Farm Fire & Cas. Co.,* No. C8-02-62, 2002 WL 1547673 (Minn. App. 2002)("All of the damage which occurred to the [insureds'] home resulted from continuous or repeated seepage or leakage of water from a plumbing system or plumbing fixture, from improper construction and grading, or from mold or fungal contamination. The policy's plain language excludes coverage for those damages."); *Sather v. State Farm Fire & Cas. Ins. Co.,* No. C3-01-1268, 2002 WL 378111 (Minn. App. 2002).

owner and other resources concerning moisture infiltration pathways, the extent of mold involved, and prior remediation efforts will help determine whether the mold growth is caused by the fact pattern suggested by the owner, or whether it stems from problems unrelated to the liability claimed. Some of the typical documents needed for this assessment include maintenance agreements and records, operations manuals, as-built architectural plans, facility program documents and test results, building management records, prior insurance claims, and governmental inspections, among others.

The Owner's Prevention Role

From a defense perspective, counsel should investigate whether the building owner had in place appropriate measures to prevent mold proliferation, and that necessary steps were taken to address any indoor air quality concerns. The absence of such measures can become an integral part of the defense against the owner's subsequent mold property damage claim.

Some of the more notable Indoor Air Quality preventative measures that might be employed include:

Pollutant Source Removal/Modification:

Perform routine maintenance of HVAC systems such as periodic cleaning of ducts and dampers, and timely filter replacement; immediately remove water from leaking or flooding to reduce microbiological amplification; replace water damaged ceiling tile and sheetrock; use solutions containing biocides (e.g. bleach) in areas where mold and bacteria are found; replace waterlogged carpeting and padding; vent contaminant source emissions to the outdoors; maintain indoor air relative humidity below 60% (50% where cold surfaces are in contact with room air); maintain temperature control in the range of 68-76°F; store and use paints, adhesives, solvents, and pesticides in well-ventilated areas; and allow time for building materials in new or remodeled areas to off-gas pollutants prior to occupation.[29]

Ventilation Rates:

Increasing air ventilation rates to conform with accepted design recommendations and standards can promote system efficiencies, dilute contaminants with outdoor air, or isolate/remove contaminants by controlling air pressure relationships.[30]

Air Cleaning:

This methodology essentially removes contaminants from the air. The technologies employed include particulate filtration (e.g., furnace filter), electrostatic precipitation, negative ion generation, and gas sorption, among others. Depending on the situation, air cleaning can be expensive and may have limited impact on the overall indoor air environment.

Education and Communication:

Communication between the building owner, occupants, management, and maintenance personnel facilitates an understanding of the causes, consequences, prevention and remediation of indoor air quality problems.[31]

A thorough analysis of the communication exchanged, in combination with an evaluation of the owner's Operations and Maintenance (O&M) program, will help determine whether appropriate measures were taken to address any indoor air quality concerns.

Preserve the Building's Condition for the Defense Inspection

Depending on the situation, the moisture and mold condition within a building can change in a matter of hours. Thus counsel must act promptly to protect the defense inspection through a request to preserve the actual building condition upon which the claim is predicated. If the owner for some reason does not have control over the building counsel must notify the entity exercising control of the request to preserve evidence.

Preservation of evidence for extended time periods is typically not possible in mold cases. Therefore, it is incumbent upon the defense to retain the appropriate experts to evaluate the liability issues involved and the damages claimed by the owner. As noted above, experts from a variety of fields (construction, design, engineering, financial, medical, remediation, etc.) may be needed depending on the scope of the claim involved.

Investigate With the End in Mind

A swift and proper investigative response to a mold

[29] *See generally* Occupational Safety & Health Administration, U.S. Department of Labor, OSHA Technical Manual, Section III, Chapter Two; Indoor Air Facts No. 4 (revised), Sick Building Syndrome, Office of Radiation and Indoor Air (6607J) (April, 1991)

[30] United States Environmental Protection Agency, Indoor Air Facts No. 4 (revised), Sick Building Syndrome, Office of Radiation and Indoor Air (6607J) (April 1991).

[31] *Id*.

property damage claim can develop the defenses needed to oppose the owner in the event of a lawsuit. Some of the defenses that counsel might develop include:

- Improper maintenance or operation;
- Failure to mitigate damages through proper or timely remediation or otherwise;
- Statutes of limitations and repose;
- The failure of the owner to show its claim is based on valid scientific principles (such as gravity);
- Others are liable, not your client;
- The owner has contracted to indemnify your client;
- Contractual limitations of remedy; and
- Spoliation of evidence

MITIGATION OR SPOLIATION

Mold property damage situations highlight an inherent conflict between the need to preserve evidence and the need to remediate in a time frame appropriate under the circumstances. Failure to mitigate damages can be a defense to a property claim brought by a building owner. Therefore, plaintiffs must balance their timely remediation while identifying possible defendants, informing them of the possibility of litigation, and providing an opportunity to inspect and possibly test the property.

The Duty to Mitigate

Generally, a person whose property is damaged by the wrongful act of another has a duty to exercise reasonable care and diligence in an effort to minimize the loss.[32] This duty arguably can be read to require the potential plaintiff to begin remediation activities almost immediately after discovering the mold condition. However, remediation will likely alter, through the repair process, moisture infiltration sources, eliminate water pathways, and remove fungi located in various building materials and furnishings. Because these items are relevant to issues of liability, causation and damages, early removal of this evidence may have adverse ramifications in a subsequent lawsuit.

Spoliation

Spoliation has been described as "[t]he destruction of evidence. It constitutes an obstruction of justice."[33] Spoliation can occur when (1) the potential spoliator has notice of pending or potential litigation; (2) the evidence is within the spoliator's care, custody, or control; and (3) the spoliated evidence is relevant.[34] Some jurisdictions recognize spoliation only as an evidentiary infraction, and not an independent cause of action.[35] Other jurisdictions recognize the independent tort of spoliation.[36] In such jurisdictions the spoliation action can lie against either a primary or third party.

In general, there appear to be 5 elements required for a spoliation cause of action:

(1) the defendant spoliator had actual or constructive knowledge of pending or threatened litigation;

(2) a duty, whether contractual, legal or in tort, to preserve evidence existed between the parties;

(3) the evidence was critical to the pending or threatened litigation;

(4) but for the spoliation, the plaintiff would have prevailed in the underlying pending or threatened litigation; and

(5) the plaintiff suffered damages.[37]

Sanctions, Exclusion of Evidence, and Unfavorable Inferences.

Courts have inherent judicial authority to exclude evidence as a sanction.[38] Evidence exclusion for spoliation is permissible even when there has not been a violation of a court order or bad faith.[39] Spoliation sanctions may be imposed even if non-parties are responsible for the property being unavailable.[40] Therefore, a party risks the imposition of summary judgment against it where the sole support to prove fault and/or causation is an expert's evidence and opinion which in turn is based solely on the lost property.

[32] *See, e.g., Mullen v. Otter Tail Power Co.*, 153 N.W. 746, 748 (Minn. 1915).

[33] *Federated Mut. Ins. Co. v. Litchfield Precision Components, Inc.*, 456 N.W.2d 434, 436 (Minn. 1990)(citing *Black's Law Dictionary* 1257 (5th ed. 1979).

[34] Briscoe, Edward J., *Preserving Evidence: Keeping Your Cases From Getting Burned*, For the Defense 73 (August 2001), *citing Dillon v. Nissan Motor Co.*, 986 F.2d 263 (8th Cir. 1993).

[35] Briscoe, *supra*.

[36] Briscoe, *supra*.

[37] Briscoe, *supra*.

[38] *See, e.g., Patton v. Newmar Corp.*, 538 N.W.2d 116, 118-19 (Minn. 1995).

[39] *Id.*

[40] *See, e.g., Himes v. Woodings-Verona Tool Works, Inc.*, 565 N.W.2d 469, 471 (Minn. App. 1997), rev. denied (Minn. Aug. 26, 1997); *Garrison v. Farmers Co-Operative Exchange*, 2000 WL 1693630 (Minn. App. 2000).

"The fact that a particular form of evidence no longer exists does not necessarily require the imposition of sanctions. It is only when one party gains an evidentiary advantage due to its failure to preserve evidence after that party has been given the opportunity to examine it, that a spoliation sanction is justified."[41] If a spoliation sanction is ordered, it is likely reviewed under an abuse of discretion standard.[42] The sanction's propriety is determined by the prejudice resulting to the opposing party through an examination of "the nature of the item lost in the context of the claims asserted and the potential remediation of the prejudice."[43] Unclear, incomprehensive, inaccurate or incomplete evidence generated by one side's expert (possibly as judged by the opposition's expert) may be an insufficient substitution for the lost evidence.[44] Therefore, the court may not only exclude an expert's opinion, but any evidence generated by the expert, including measurements, photographs, etc.

It is also important to remember that spoliation need not be intentional in order to be sanctionable. In fact, negligent spoliation is far more common that intentional spoliation, and the majority view recognizes negligent spoliation as an evidentiary infraction.[45] Negligent spoliation cases focus on the importance of the evidence to the opponent's case, not on the intent of the spoliator in destroying, losing, or altering evidence. Because of this, an explanation of inadvertence may not be a valid defense to a claim of negligent spoliation.

Some jurisdictions may allow an unfavorable inference instruction to be given to the Jury. For example, in egregious situations, Minnesota permits "an unfavorable inference to be drawn from the failure to produce evidence in the possession and under the control of a party to litigation."[46]

Notice Early and Often

Defense counsel pursuing a spoliation defense should consider whether the owner properly analyzed the source and cause of the moisture and mold condition, identified the possible parties responsible for the condition, and provided prompt and repeated notice to those entities as soon as possible after identifying the building's condition. In order to impose some obligation on another to act at the peril of losing an opportunity to investigate, as well as to counter any spoliation defense, the owner must show that its notice reasonably notified the recipient of a breach or claim and the facts surrounding the same.[47] The rationale behind this "spoliation notice" is very similar to that utilized in U.C.C. breach of warranty notice matters.[48] A proper notice will preserve evidence, permit counsel to investigate, and lay the groundwork for any later spoliation defense.

CONCLUSION

Defending the mold property damage case involves a thorough understanding of construction techniques, the interaction of complex building systems with the air environment, and how changing moisture levels and the development of mold affect the building and its occupants. Defense counsel must be able to interact with a variety of experts in a timely and comprehensive investigative process to facilitate the forensic investigation needed to determine the cause of the mold, moisture pathways, the proper scope of remediation, and identify potential responsible parties.

Mold litigation is expanding in the property and personal injury areas. As these claims increase defense counsel must understand changes in testing protocol and evaluation, insurance coverage, the relationships, contractual and otherwise, between potentially liable parties, new laws and regulations, and public perception, and how these changes will impact the defense of their clients. ▲

[41] *Falde v. Bush Brothers & Co.*, 2001 WL 1117801 (Minn. App. 2001).

[42] *Id.*

[43] *Patton*, 538 N.W.2d at 119. *See, also, Henry v. Joseph*, 1997 WL 481932 (Minn. App. 1998).

[44] *Patton*, 538 N.W.2d at 120; *Hoffman v. Ford Motor Co.*, 587 N.W.2d 66 (Minn. App. 1998).

[45] *See*, Briscoe, *supra*.

[46] *Kmetz v. Johnson*, 261 Minn. 395, 401, 113 N.W.2d 96, 100 (1962). *See, also*, CIVJIG 12.35 Failure to Produce Evidence -- Inference (4th ed.).

[47] *See, e.g., Hoffman v. Ford Motor Co.*, 587 N.W.2d 66 (Minn. App. 1998).

[48] Id. at 70 (Under the U.C.C., "a claimant must 'notify the seller of breach or be barred from any remedy.'" citing Minn. Stat. §336.2-607(3)(a). While the notice's sufficiency is a fact question, the notice should (1) provide the seller a chance to correct any defect; (2) afford the seller an opportunity to prepare for negotiation and litigation; and (3) should provide the seller with a safeguard against stale claims being asserted after it is too late for the manufacturer or seller to investigate the claim.)

[48] *Id.* at 70 (Under the U.C.C., "a claimant must 'notify the seller of breach or be barred from any remedy.'" *citing* Minn. Stat. §336.2-607(3)(a). While the notice's sufficiency is a fact question, the notice should (1) provide the seller a chance to correct any defect; (2) afford the seller an opportunity to prepare for negotiation and litigation; and (3) should provide the seller with a safeguard against stale claims being asserted after it is too late for the manufacturer or seller to investigate the claim.)

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