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CONSTRUCTION DEFECT SEMINAR

***DEVELOPMENTS IN
CONSTRUCTION DEFECT LITIGATION***

Presented by

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The ACE Group of Insurance & Reinsurance Companies.

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Mr. Henning is one of the presenters for Monday's all-day seminar, "Construction Defect." He is a founding partner of Wood, Smith, Henning & Berman LLP, a Los Angeles firm that represents developers, contractors, design professionals, and surety and handles all aspects of civil litigation including environmental and toxic tort, general liability, intellectual property, transportation, entertainment, and business litigation matters.

His recent articles on construction defect litigation include "The Top 25 Cases Every Claim Professional and Lawyer Must Know," "Defending the High End Single Family Home," and "Restoring Credibility to the Case Management Order Process: Considerations for the Builder, Counsel and Claim Professional." He is a frequent speaker to builders, risk managers, and claim professionals on pertinent construction issues including "Defending the Toxic Mold Claim," "Understanding and Defending Sulfate Claims," "Calderon Act Claims," and "Trends in Construction Litigation." Representing builders throughout California, he is active in various industry associations in an effort to streamline the effective handling of construction defect litigation.

He received both his undergraduate and law degrees from the University of Nebraska, where he competed on the National Trial team.

Notes

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DEVELOPMENTS IN CONSTRUCTION DEFECT LITIGATION

Stephen J. Henning
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PROACTIVE RISK MANAGEMENT: CONSTRUCTION DEFECT LITIGATION, KNOWING THE CASES, TRENDS AND UNRESOLVED ISSUES

Successful management of construction defect risks requires a comprehensive understanding of the past cases, emerging trends and unresolved issues. Armed with this information, risk managers and insurers can truly be proactive and work together to implement protocols to avoid missteps of the past and future claims.

Today's presentation explores each issue which arises during the life of a construction claim. Seminal cases which resolve each issue, or give rise to other issues, are discussed. Nuggets of information as to the approach taken by the court in terms of contractual risk transfer, policy language and theories of liability will be extracted and applied to the issues which remain unanswered. In this regard, we will discuss and apply the findings of seminal cases, focusing in particular on the court's approach to contractual risk transfer, policy language, and theories of liability.

What the future holds for construction is an increasingly complex question for those charged with minimizing risks. We have identified the seven trends in construction defect litigation which everyone in the construction industry faces in the coming decade. Each trend raises issues which impacts in various degrees the decisions that need to be implemented today.

In addition to the outline for the presentation set out below, we have devoted the balance of our materials to the one issue which will predominate in the context of construction throughout the next decade—toxic mold. What is "toxic" mold, what structures are subject to toxic mold claims, what are the health impacts known and unknown together with defense strategies to employ in conjunction with any claim involving mold are set out in the written materials which follow. The presentation will highlight the implications of recent verdicts and settlements involving the issue and appropriate protocols to implement

The bottom line: knowledge is power. Knowing how the courts will rule on any unanswered issue is valuable information for those charged with risk management, albeit for the builder or insurer.

PRESENTATION OUTLINE

1. SEVEN POWERFUL TRENDS WILL IMPACT CONSTRUCTION DEFECT LITIGATION IN THE UPCOMING DECADE

- (1) The changing insurance market;
- (2) Product subjected to construction defect claims;
- (3) Acceleration of toxic mold claims;
- (4) Impact of policy exhaustion (out-growth of years of defect litigation taking toll on policies, impact on joint and several liability, impact re missing parties on builder);
- (5) Carrier disputes (equitable contribution/subrogation claims between the additional insured carrier and excess carrier; role of carriers in toxic mold claim which alleges both bodily injury and property damage; and; impact of exclusionary language common to the more recent policies of insurance);
- (6) Proactive builders;
- (7) Limitation on recoverable damages.

2. ISSUES COMMON TO EVERY CONSTRUCTION DEFECT CLAIM; SEMINAL CASES; WHAT IS RESOLVED AND UNRESOLVED

- (1) Who Will Defend?
 - a. Obligations of the additional insured carrier
 - b. Issues growing from after acquired property
 - c. Impact of policy exclusions
 - d. Contractual indemnity obligations
- (2) Duties Growing from Self-Insured Retention

- (3) Defining Property Damage; Is it Recoverable?
 - a. What are recoverable damages
 - b. Limitations regarding same.
- (4) Strict Liability—expansion or contraction?
 - a. Parties subjected to strict liability
 - b. Suppliers and Subs—evolving law; impact
- (5) Statute of Limitations
 - a. Impact of repairs—equitable tolling
 - b. Toxic mold issues
- (6) Equitable Contribution / Subrogation
- (7) Non-Litigated Claims
 - a. Duty to defend
 - b. Duty to indemnify
- (8) Breach of Implied Covenant
- (9) Defense Sharing
- (10) Arbitration / Attorney Fees

3. WHAT DOES THE FUTURE HOLD

- (1) Mold—damages and coverage implications
- (2) Policy exclusions—tests as to validity
- (3) Further definition of Recoverable Damages
- (4) Duties of primary, excess and additional insured carriers—to the insured and each other
- (5) Strict Liability—who is subjected to strict liability standard; courts expand definition
- (6) Role of arbitration, mediation and attempts to resolve claims/cases early

DEFENDING THE TOXIC MOLD CLAIM

Toxic mold—is it the toxic terror we read about in the media that is killing children and making people seriously ill or is it nothing more than junk science which is fast gaining popularity with an overambitious plaintiff's bar?

Insurers and risk managers face the massive question of whether toxic mold litigation will be the next asbestos or tobacco debacle which has the destructive potential of bankrupting parties, generating massive exposures and expense to all parties involved. Statistical data from past experience is scant, as the tort truly is emerging.

Awareness of the issue is widespread. In response, proactive insurers have attempted or are initiating efforts to limit coverage available in both first-and third-party policies. Lawyers are trying to decipher unresolved issues, pulling analogous arguments from asbestos decisions in an effort to discern where the judiciary will ultimately rule in terms of the threshold issues of trigger of coverage, statute of limitations and exclusionary language. In response, policyholders and risk managers potentially subjected to a mold claim are working hard to minimize the fiscal impact by evaluating contractual risk transfer mechanisms and adopting strict protocols for future claims.

We believe mold claims will not be the next asbestos. We also believe claims of toxic mold are no reason for panic. However, we know mold claims can be dangerous if ignored or improperly handled.

In the context of construction defect litigation, claims of toxic mold follow the introduction of water into the building envelope. Allegations of property damage caused by the mold are common in the garden variety defect case. In the more exotic case, claims of bodily injury are alleged as a stand alone damage or together with the property damage claim. In recent months, claims of bodily injury are being added to ongoing suits wherein property damage from water intrusion is the signature defect claim. Accordingly, knowledge on the issue is critical.

Knowing the genesis of the mold claim, recognizing the emerging trends and understanding those issues which are open for judicial interpretation empower the risk manager and insurer as to the response required at every juncture. If, in fact, mold is the emerging tort of the decade, understanding these issues and trends will be key to minimizing exposure. The presentation today, together with this paper, will provide the critical tools necessary for handling any claim involving toxic mold.

MOLD CONTAMINATION: LIABILITY ISSUES:

ESSENTIAL INFORMATION YOU NEED TO KNOW FOR SUCCESSFULLY HANDLING AND RESOLVING ANY CLAIM INVOLVING TOXIC MOLD

With alarming frequency, the media has focused on stories recanting the ill effects of toxic mold that may lurk within the home and workplace. Included within these sensational reports are bizarre claims of deleterious effects to the health and safety of every individual that steps foot into a mold infested environment. These reports are further fueled by the internet, which disseminates without medical authority, claims of infant deaths, cancer risks, and side-effects resulting from exposure to toxic mold.

Over the past three years, the judiciary has consistently chipped away at the damages individuals can recover for defective construction. Perhaps the greatest coup to the insurance industry and builders was the landmark California decision of *Aas v. Superior Court*¹, which restricted the recovery for construction defects which had not yet caused damage. While this decision was widely hailed as fatal to the cottage industry surrounding construction defect litigation, we believe this proverbial squeezing of recoverable damages over time has caused the active plaintiff bar to refocus its efforts.

¹*Aas v. Superior Court*, 12 P.3d 1125 (Cal. 2000).

Mold issues potentially touch every individual. We all live in homes, work in buildings and shop in stores where we are susceptible to poor indoor air quality. Individuals reporting allergies have increased in recent years, the symptoms of which are strikingly similar to mold exposure. For whatever reason, the past six months have yielded a measurable increase in the number of claims being filed which allege personal injury and/or property damage caused by the presence of toxic mold.

The bottom line: every individual has potential indoor air quality issues. Every individual is a potential claimant. It is little wonder that the plaintiff bar has seized upon this emerging tort.

MOLD IS EVERYWHERE

Mold is pervasive. There are well over 100,000 species of mold in our ecosystem.² However, approximately 100 different species of mold are linked to causing a human illness/disease or response. Three molds are generally perceived as cause for concern in terms of this emerging tort. *Stachybotrys* is perhaps the most widely recognized “toxic” mold; others enjoy less familiarity to the average lay person.

Media reports emphasize that mold is everywhere, but universally miss the proverbial mark when it comes to balanced reporting. This lack of balance is particularly exaggerated on internet sites targeted to the potential claimants. We note, in general, the continuing legal education available focuses heavily on legitimizing the claim of toxic mold. For this reason, it is imperative to bring balance to the issue.

Not every mold is toxic – most are not. Claimants alleging toxic mold exposure face a huge hurdle in terms of causation issues. In short, not every case involving mold is cause for alarm or panic. ***With effective protocols in place, builders, risk managers and claim professionals can successfully handle and resolve claims involving toxic mold.***

Improper handling of the toxic mold claim can result in staggering expense, a fact validated by a cursory review of the larger verdicts and settlements to date. Testing alone can be a significant dollar item. Exposures to some sensitive populations may give rise to legitimate personal injury claims. For these reasons, it is imperative that builders, risk managers and claim professionals implement protocols for dealing with any claim involving mold related damages.

What follows is a primer on defending the toxic mold claim. It encompasses what we believe the builder, risk manager and claim professional need to know if presented with a toxic mold claim.

SPOTTING EMERGING TRENDS: TYPES OF PRODUCT IMPLICATED

As national coordinating counsel for several clients in the toxic mold arena, our firm has been charged with monitoring developments in the national media regarding this emerging tort. In the course of our monitoring role, we have identified trends in terms of the type of product that is at the center of a toxic mold claim.

Before we dive into the identification of the trends, it is important to recognize that mold needs four essential components to grow—food, water, appropriate temperature and lack of ventilation.³ Growth can occur within 24-48 hours at exponential rates.⁴ Many building materials provide a perfect food source for mold, meaning that we simply need to add a water source in order to provide the environment for mold growth.

²See Bureau of Env'tl. & Occupational Disease Epidemiology, N.Y. City Dept. of Health, Facts About Mold (2001), <http://nycdoitt.ci.nyc.ny.us/html/doh/html/epi/epimold.html>.

³See *id.*

⁴See *id.*; see also Dept. of Env'tl. Health & Safety, Univ. of Minn., Managing Water Infiltration into Buildings (2001), at <http://www.dehs.umn.edu/iaq/flood.html>.

National media reports over the past year have repeatedly identified the same categories of products as the genesis of the claim. Please note that this list is not meant to be exhaustive in nature; however, it does provide some general background in terms of the typical claimant and special concerns which need to be addressed for these individuals.

Trend: Mold Claims Involving Schools:

School related claims are emerging as a clear trend for the toxic mold claim. Children have decided emotional appeal to the trier of fact; news stories recounting the horror of impaired air quality tug at the emotions of the lay person.⁵ In addition, there is a school of thought that children are more susceptible to deleterious effects of mold exposure due to less developed immune systems.⁶

In addition to children, teachers and others exposed to toxic molds are filing claims against the school district and others who may share responsibility for the alleged unhealthful environment.⁷

Modular housing, which is meant as a band-aid for overcrowded schools, often is involved where individuals are claiming mold injury. These modular units often are the genesis of workers compensation claims, OSHA investigations and varied complaints. Often, the materials used to construct modular units are prime nutrients for mold, as mold thrives on carbon-based materials. Aging buildings in need of maintenance or subjected to sloppy renovation make up a substantial amount of the school-related claims.

Responses to claims of toxic mold exposure are varied depending on the sophistication of the entities involved. Some move into panic mode and conduct wholesale testing of all areas in order to detect any toxic mold.⁸ Others test, evacuate, remediate and litigate (not necessarily in this order) to recover damages for the costs associated with the claim.⁹ Perhaps the most dangerous approach is to do nothing, which subjects a host of parties to later suits for negligence. Parties potentially implicated in the school suit include all construction related trades (design professionals, contractors, subcontractors, consultants), board members and school districts.

Trend: Mold Claims Involving Apartments:

Apartment housing, particularly when it involves lower end products, is another focus of toxic mold claims.¹⁰ Apartment tenants make up a large segment of the population and hold obvious jury appeal. Stories reciting mold complaints to unresponsive property management companies / landlords often ring true for many who have had similar complaints. The Delaware Supreme Court recently upheld a one million dollar verdict against a landlord brought by tenants in a toxic mold situation.¹¹

⁵See LeAnn Spencer, *Poor Upkeep cited in mold report*, Chicago Sun Times, June 16, 2001, <http://www.chicagosun-times.com>; Linda Bicksler, *Freeman School next on mold list*, The Beacon News, May 26, 2001, <http://www.suburbanchicagonews.com/top/a26moremold.html>; Lori Hayes, *School addresses concerns over mold*, The Cincinnati Enquirer, June 14, 2001.

⁶ See SLACK Inc., *Air Quality program for schools is an old idea whose time has come about 1:5 Americans occupy a school building each day, they are at risk for several Infections and Chronic Conditions*, Infectious Diseases in Children (2001), at <http://www.idinchildren.com/default.asp?article=idchome.asp>.

⁷ See Clark, *Teachers Sue, Claim Mold Lead to Illness*, Cincinnati Enquirer, August 27, 2001.

⁸See *State will survey, test moldy classrooms—North Coast parents and school officials say health problems possible linked to poor indoor air quality*, The Press Democrat, May 5, 2001, available at <http://64.42.5.135/local/news/5mold-a1empirea.html>.

⁹See *id.*; see also *Students, Workers Sue for Mold Contamination*, Amarillo Globe News (Texas), June 10, 2001, http://www.amarillonet.com/stories/061001/tex_students.shtml; Lavinia Hechinger, *Litigation likely in school's moldy dilemma*, The Express-Times (Penn.), June 13, 2001, http://www.pennlive.com/news/expresstimes/index.ssf?/news/expresstimes/pa/beth_sc4.html.

¹⁰See, e.g., Cassi Feldman, *AIMing low - Nation's largest private landlord tries to oust low-income families*, San Francisco Bay Guardian, July 11, 2001, <http://www.sfbayguardian.com>.

¹¹See *New Haverford P'ship v. Stroot*, 772 A.2d 792 (Del. 2001).

Apartments seem to invite mold claims since construction is not always of the highest quality and maintenance runs the gamut (both by the landlord and tenant). Plumbing and mechanical systems may be outdated. Tenants seeking ways to escape monthly rental obligations may also claim breach of the implied warranty of habitability based on mold claims—another strong developing trend. Moreover, the prospect of framing an apartment-related suit as a class action makes this type of litigation especially appealing to the plaintiff bar.

In addition to the pure apartment situation, we are also seeing an increase in mold claims submitted in connection with school-related housing. This includes university housing or dormitory housing for students.¹² Again, this category is also attractive as a potential class action.

Trend: Mold Claims Involving Single Family Homes:

Homeowner association or common interest developments were ground zero for construction defect litigation. Over time, defect claims have moved away from the condominium to groupings of single family homes which are prosecuted together, the aggregate damages of which rival that of the condominium claim. Individual claims for mold contamination (both first and third party) are increasing in frequency.¹³ For example, high-profile advocate Erin Brockovich is prosecuting her own toxic mold claim for personal injury growing from her single family home¹⁴ while, at the same time, lobbying the California legislature for implementation of standardized protocols for remediation under the guise of the Toxic Mold Act.¹⁵

Claims of toxic mold are increasingly being made within the context of a single family home, regardless of whether it falls in the high or low end of the valuation spectrum. This makes sense from the standpoint that the damages flowing from bodily injuries are specific to those individuals within that home. Stand-alone single-family home cases can involve substantial damages allegations for both personal injury and property damage.

Moreover, unusual actions by homeowners are being taken before litigation. At least two homeowners have burned their homes to the ground under the mind-set that it was more reasonable to torch their homes and possessions than to have them professionally remediated.¹⁶ At least one mold expert has advised homeowners that this would be the best way to remediate the mold problem.¹⁷ A growing number of homeowners have formally petitioned their local jurisdictions to condemn homes,¹⁸ define mold as a public nuisance¹⁹, and prescribe a number of other unusual remedies.

In each case, homeowner action is generally followed by a lawsuit against one or more parties based on theories of defective construction, non-disclosure, fraudulent concealment, breach of fiduciary duties

¹²See, e.g., Henry K. Lee, *UC Berkeley sued over mold in housing; Father files on behalf of his suffering son*, San Francisco Chronicle, May 24, 2001, <http://www.sfgate.com>; see also Matt Flores, *UTSA evacuees return briefly*, San Antonio Express News, May 10, 2001.

¹³See Terrence Stutz, *Keeping mold coverage, state told - Homeowners clash with insurance firms*, Dallas Morning News (Austin), June 27, 2001, at 1A; R.A. Dyer, *Indoor Mold Called Next Health Crisis*, Texas Star Telegram (Austin), June 27, 2001.

¹⁴*Brokovich v. Morrison Associates*, No. 051037 (Los Angeles Co. Super. Ct.).

¹⁵See Marco R. della Cava, *Being Erin Brockovich These Days, the famed crusader is battling mold - and reports of being "Broke-ovich"*, USA Today (Virginia), April 16, 2001, <http://www.usatoday.com>.

¹⁶See *The Fire Cure*, People, July 9, 2001; see also *O'Hara v. Cockram*, No. 00-12848 (Lane Co., Ore. Cir. Ct.) (earlier this year, the O'Haras, allowed firefighters to burn the house to the ground, both as a training exercise for the firefighters and to permit them to build a new home on the property. Defense lawyers claimed that the torching of the house was a stunt to win the sympathy of potential jurors).

¹⁷See KXTV News10, *Forest Hill Couple Use Ultimate Weapon in War on Toxic Mold* (Feb. 15, 2001), at <http://www.kxtv10.com/news-story/February2001/021501/mold-fire.htm>.

¹⁸See Annysa Johnson, *Couple want city to act on mold-filled house - Franklin family fled home after illnesses; they want it condemned*, Milwaukee Journal Sentinel, June 6, 2001, at <http://www.jsonline.com/news/metro/jun01/mold06060601.asp>.

¹⁹See San Francisco, Cal., Health Code art. 11, § 581 (2001).

and the like.²⁰ These suits can include the contractors, design professionals, realtors, inspectors, remediation experts and lawyers who may have been involved at any juncture in the transaction.

Trend: Mold Claims Involving Public Buildings:

A growing number of complaints made by state and local officials, as well as by occupants of government buildings, are fueling a separate category of toxic mold claims founded on public buildings.²¹ In fact, some of the largest dollar verdicts involved Florida courthouses, which were alleged to suffer from pervasive mold (discussed *infra*). *Even the Environmental Protection Agency is not immune. Workers in its Washington, D.C. office are suing the EPA, which has recently promulgated remediation protocols for commercial buildings and schools.*

There are many possible reasons behind the proliferation of mold claims in connection with public structures. Government authorities are paying increasing attention to indoor air quality. Claims of mold are not dismissed easily; protocol typically requires evacuation, followed by invasive testing.²² Some have theorized that public buildings, like schools, are typically constructed by the contractor submitting the lowest bid, as mandated by the relevant statutory scheme. This economy measure, while ensuring that the public is not overspending on necessary public buildings, often forces the contractor to provide no-frills construction and create unnecessary tension concerning costs and construction delays. Whatever the reason, the fact remains that there are a large number of public structures which have been subjected to a toxic mold claim in recent months. These conditions allow toxic mold to flourish.

Trend: Mold Claims Involving Commercial Buildings:

Damages in the commercial case involve not only personal injury, but potential loss of use and business interruption. One expert stated at a recent seminar that claims under the umbrella of "sick building syndrome" as diagnosed years ago actually may fall squarely in the toxic mold arena if brought in today's legal environment. Indeed, measures adopted during the energy crisis to make buildings more energy-efficient actually mean buildings are unable to breathe.²³ These same strict codes and efforts to make the buildings watertight have resulted in structures which trap mold within the building envelope and circulate it throughout the building via the air conditioning system.

In addition, newer products such as Exterior Insulation and Finish Systems ("EIFS") and synthetic stucco effectively trap moisture in the building envelope, which provides an ideal environment for mold growth.²⁴

Individuals are bringing suits claiming that the building has caused injury called Sick Building Syndrome ("SBS") and Building Related Illness ("BRI"). These illnesses include symptoms such as burning eyes, nose, and throat, sinusitis, dry skin, nausea, headaches, fatigue, and mental confusion. Cases have been brought by employees seeking reasonable accommodation pursuant to the American's with Disabilities Act ("ADA").²⁵

²⁰See, e.g., *Mold forces family from home - Cleanup may cost as much as \$50,000*, Concord Monitor, July 9, 2001 (family without insurance for alleged toxic mold condition brings suit against home inspector for failing to inspect attic where mold emanates), <http://www.concordmonitor.com/stories/news/state/mold0709.shtml>.

²¹On March 27, 2000, California Superior Court Judge Elisabeth Krant filed a lawsuit against Tulare County alleging medical problems stemming from mold contamination in her chambers in the county courthouse. Since then, approximately 275 claims by employees in that courthouse have been filed against the county. A second lawsuit on behalf of 101 plaintiffs was recently filed. A number of workers compensations claims have also been filed. See Anastasia Hendrix, *Erin Brockovich Crusades Against Mold*, San Francisco Chronicle, March 8, 2001, <http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2001/03/08/MN218240.DTL>.

²²See, e.g., Cindy Van Auken, *City Reopens Offices After Mold Scare Dismissed*, Waco Tribune Herald, July 3, 2001.

²³See, e.g., *When the Atmosphere at Work Is Just Unbearable*, Los Angeles Times, July 22, 2001.

²⁴See Center for Disease Control, *Black Mold: Creeping Destruction · It Destroys Houses and Makes Residents Sick* (2001); Int'l Union of Operating Eng'r, *Indoor Air Quality Solution, Toxic mold may be a silent killer perfect breeding ground after water leaks into walls, roofs, floors* (2001), http://iaq.iuoe.org/iaq_htmlcode/iaq_news_clips.

²⁵See Americans with Disabilities Act of 1990 (ADA), 42 U.S.C.A. § 12101 (West, WESTLAW through 2000).

Trend: Health Care Facilities:

Health care facilities are perhaps the least publicized of the trends, but they merit recognition because of the presence of immune-compromised individuals. Hospitals, physician offices, and nursing homes all house individuals who are fragile from a health standpoint.²⁶ In this environment, mold can truly be fatal. However, this category of facilities has always been proactive in terms of testing and abatement of any issues relating to indoor air quality. Remediation guidelines promulgated for commercial buildings, however, are most likely inappropriate given the presence of the immune compromised, which makes this category of product more expensive from a remediation standpoint.²⁷

In addition, California has mandated that all hospitals perform seismic evaluation and retrofitting to comply with structural and mechanical standards geared to keep a hospital operational in the wake of severe earthquakes. This must be accomplished under the rigorous time line set under the Alquist Hospital Seismic Safety Act. Given this aggressive, mandated schedule of construction, the potential for defective construction, water-related damages, and mold contamination will rise substantially.

Trend: Second Generation Suits:

Under the umbrella of "second generation suits," we have categorized an increasing number of claims growing from prior claims or suits involving construction defect litigation or mold abatement gone astray.

In the arena of prior construction defect cases, there is a growing trend of coming back for second and third bites at the proverbial apple for improper investigation, identification or remediation of the mold condition in the first instance.²⁸ Suits are increasingly being filed against board members, experts and lawyers for failing to recognize the scope and gravity of mold conditions, repair protocols and costs associated with eradicating the alleged toxic mold. These suits are driven by the fact that remediation is expensive.

Also falling under the ambit of second generation suits are claims against the remediation contractors and experts for improperly effecting the remediation in the first place. Allegations are made that the contractors did not properly repair the condition causing the mold, contain the mold during remediation, or prevent the mold from spreading to other areas of the building.²⁹

²⁶See, e.g., Trista Talton, *Southport nursing home plague by mold*, Wilmington Star, July 27, 2001, available at <http://www.wilmingtonstar.com>.

²⁷Seeking to update and revise its recommendations for prevention and control of infectious diseases for the health-care environment, the CDC's Healthcare Infection Control Practices Advisory Committee has issued a Draft Guideline for Environmental Infection Control in Healthcare Facilities, 2001. This compilation of recommendations addresses airborne and waterborne diseases, considerations for construction, environmental services and environmental sampling as well as other topics. This treatise also notes the risks posed to patients by environmental disturbances associated with construction projects as well as repair and remediation work such as removing old sinks that can introduce or increase contamination of the air and water. In recognition of those risks, the Committee also recommends teamwork between hospital epidemiologists and infection control professionals and the contractors and design professionals in the building, maintenance and renovation of healthcare facilities.

²⁸See David Bierman, *The Dangers of Secondary Mold Growth Caused by Improper Remediation of Flooded Buildings*, Environmental Building News, <http://www.buildinggreen.com/elists/flood.html>.

²⁹See Helen Zukin, Esq., *Legal Ramifications of Indoor Air Pollution*, Law Finance/Group Inc. (2000)(Remediation contractors are increasingly being held liable for reoccurring mold growth due to initial negligence in improper remediation), <http://www.lawfinance.com/ARTICLES/Zukin.html>.

STICKER SHOCK: VERDICTS AND SETTLEMENTS UNDERScore THE SERIOUS NATURE OF TORT AND PROVIDE INSIGHT FOR HANDLING FUTURE CLAIMS

There is a school of thought that toxic mold claims are nothing more than junk science or a passing fad without basis in the scientific community. For those charged with handling the toxic mold claim, a cursory review of recent verdicts and settlements from a nationwide perspective shows that: (1) mold cases can be dangerous; and (2) effective handling of the claim upon presentation can truly minimize the exposure.

Consider these recent verdicts and settlements that made headlines throughout the nation:

- Single family home: \$32.2 million verdict against Farmers Insurance Group handed down by Texas jury in June, 2001. Plaintiff submitted mold claim to first party insurer seeking less than \$200,000 to remediate mold in an 11,500 square foot home. Plaintiff claimed insurer mishandled the claim by allowing mold to overrun the home, requiring complete destruction and rebuilding of the home at a cost of more than \$6 million. Plaintiff Melinda Ballard has gained national recognition as an advocate increasing awareness of mold issues, making appearances before the Texas Department of Insurance hearings and cameos on NBC and other national media.³⁰ Melinda's husband, Ron Allison, reportedly has had to retire at 33 because he has lost much of his cognitive abilities due to exposure to toxic mold.³¹
- Single family home: Last year, a federal jury in California awarded \$18 million—all but \$500,000 of that amount in punitive damages—to a homeowner against a first party insurer that declined coverage for mold damage. The trial judge reduced the award to \$3 million; the case is on appeal.³²
- Government Building: \$14.5 million cumulative payout for Martin County Courthouse (original construction cost was \$13 million) due to construction defects that caused 15 workers to become sick.
- Government Building: \$105 million cumulative payout for Polk County Courthouse, Florida.
- Apartment: \$1.04 million award upheld by Delaware Supreme Court to two women against their landlord who failed to address leaks and mold problems in their apartments, resulting in asthma attacks and other health problems.³³
- Single Family Home: \$1.5 million. In December, 2000, a homeowner settled a mold-related bad-faith lawsuit against his insurer.³⁴

³⁰See, e.g., Kelly O'Donnell, *Toxic mold devastates homeowners*, MSNBC News (June 28, 2001), at <http://www.msnbc.com/news/593696.asp>.

³¹The jury found that the cost to remediate the home was \$1,154,175.00; the cost to replace the home was \$2,547,350.00; the cost of appraisal process was \$176,000.00. See Homeowners for Better Building, *The Verdict in the Ballard/Farmers Insurance Suit (2001)*, at <http://www.hobb.org/farmersverdict.shtml>; see also CBS News Broadcasts, 48 Hours, *Invisible Killers - The Dangerous World of Viruses and Bacteria* (Sept. 28, 2000), at <http://www.cbsnews.com/now/story/0,1597,167089-412,00.shtml>; *MOLD: A Health Alert*, USAWeekend, http://www.usaweekend.com/99_issues/991205/991205mold.html.

³²Plaintiff, a 96-year-old, brought suit against his insurer for refusal to pay for mold damage caused by burst pipes in his home which led to mold infestation. While the insurer paid \$16,000 to fix the damage, claimant needed another \$30,000 for mold remediation. It was alleged the insurer stalled payment due to the advanced age of the plaintiff. See *Anderson v. Allstate Ins. Co.*, No. 00-907 (E.D. Cal).

³³See *New Haverford P'ship v. Stroot*, 772 A.2d 792 (Del. 2001).

³⁴See *Blum v. Chubb Custom Ins. Co.*, No. 99-3563 (Tex. Dist. Ct.).

- Single Family Home: Undisclosed settlement amount believed to be between \$10-12 million for single family home located in Beverly Hills infested with toxic mold. Dramatic footage of mushrooms growing in the living room coupled with claims of property damage to extremely high-end personal items added to increased settlement value. Local ordinance required complete destruction of the home due to extensive work required to remediate the home. The loss of use claim substantial, in that homeowners paid approximately \$30,000 a month for alternative residence during pendency of action.

Notably, the largest verdicts stem from allegations of improper claims handling against insurers for first party claims. A common theme to the verdicts and judgments is that all cases could have been resolved for substantially reduced sums if proper protocols had been in place and followed.

Bottom line: implementation of consistent, proactive and aggressive claim handling strategies will empower the risk manager and claim professional to take control of this emerging tort.

DEFINING "TOXIC" MOLD: KNOW YOUR ENEMY

Not all molds are toxic or reason for panic. This next section explores the molds thought to be "toxic" and of concern to the risk manager and insurer.

What is Mold?

Molds are simple, microscopic organisms, found virtually everywhere, indoors and out. They can be found on plants, foods, dry leaves and other organic material. Mold spores are very tiny and light-weight, thus allowing them to travel through the air. Mold growths can often be seen in the form of discoloration, in a range of colors from white to orange and from green to brown and black. When mold is present in large quantities, it can cause allergic symptoms similar to those experienced due to exposure to pollen.

Certain types of molds can produce toxins, called mycotoxins, that the mold uses to inhibit or prevent the growth of other organisms. Mycotoxins are found in both living and dead mold spores. Even after being disinfected, materials permeated with mold must be removed. Allergic and toxic effects can remain in dead spores. Mycotoxins are generally not volatile and a disturbance is generally required in order to trigger exposure.³⁵

Impossible to Eliminate Mold

Mold spores are almost always present in outdoor and indoor air. Virtually all commonly used construction materials and furnishings provide nutrients to support mold growth. Dirt on surfaces provides additional nutrients. Cleaning and disinfecting with non-polluting cleaners and antimicrobial agents will provide some protection against mold growth; however, it is virtually impossible to eliminate all nutrients.

Moisture Necessary to Mold Growth

Mold growth needs food and water. Mold only needs a very small amount of moisture to grow, which may make humid climates particularly susceptible to mold growth. The key then to controlling mold growth is moisture. Standing water is not required for mold growth. Mold can grow when relatively high humidity or hygroscopic properties (the tendency to absorb and retain moisture) of building surfaces allow sufficient accumulation of moisture. The amount of moisture required for fungal growth can vary depending upon the material and the organism. *Stachybotrys chartarum* (also known as *Stachybotrys*

³⁵See Cal. Dept. of Health Services, Indoor Air Quality Info Sheet, Mold in My Home: What Do I Do? (1998), at <http://www.dhs.cahwnet.gov/org/ps/deodc/ehib/ehib2/topics/Moldhome%20Eng.html>.

atra) requires high levels of moisture (humidity required for *S. atra* growth is 94%) and cellulose-containing materials for growth.”³⁶

Indications of Mold

Mold can be found on walls, ceilings, floors, basements, crawl spaces and lower rooms. Mold can be found anywhere there has been a spill or water damage—on window frames and outside walls, on carpets, on ceiling tiles, on paper or wood products, behind bubbling paint or stained/peeling wallpaper or sheetrock. The presence of mold or the potential for mold is indicated by the following: earthy or musty odor, signs of chronic roof or plumbing leaks, wet or dirty carpet, recent spills or flooding, standing water near outside air intakes, slimy or foamy water in drip pans of air-handling or air-conditioning units, extensive exposed soil indoors, over-watered indoor plants, presence of sewage backflow, moisture buildup, and water intrusion.³⁷

Molds naturally grow in an indoor environment and enter a building through open doorways, windows, heating, ventilation, and air conditioning systems. Outdoors, airborne spores also attach themselves to people and animals, making clothing, shoes, bags and pets convenient vehicles for carrying molds indoors. When mold spores settle in locations where there is excessive moisture, such as where leakage may have occurred in roofs, pipes, walls, plant pots, or where there has been flooding, they can grow. Building materials provide suitable nutrients that encourage mold to grow. Wet cellulose materials, including paper and paper products, cardboard ceiling tiles and wood and wood products, are particularly conducive for the growth of some molds. Other materials such as dust, paints, wallpaper, insulation materials, drywall, carpet, fabric, and upholstery commonly support mold growth.

Forms of Mold

There are over 100,000 species of molds in the environment. Approximately 100 are pathogenic and can cause irritation, rash, illness or death. The most common species of mold are: *Cladosporium*, *Penicillium*, *Alternaria*, *Aspergillus*, *Mucor* and *Stachybotrys chartarum* (which produces toxins). The unusual species include: *Epicoccum*, *Aspergillus versicolor*, *Aurebasidium* and *Fusarium*.

Measurement of Mold

Molds are microscopic and only become visible when individual structures or spores accumulate. They are measured and reported as “colony forming units” (“CFU”). There appears to be no consensus on the benchmark to use for potential health effects. Experts typically will compare the indoor versus outdoor CFU levels for specific mold species identified. Other experts quote specific numeric levels (e.g., 250 CFU) as “safe” levels for human inhabitation.

Toxic Mold

“Toxic” mold is a general term that has evolved over the past few years to describe a limited grouping of molds that have potential to cause various health issues. In the context of mold claims, it generally describes one of three molds which are claimed to result in deleterious effects to the health and safety of building inhabitants. The term is not a scientific term, but one widely seized upon by the media to describe mold that is potentially harmful. (One national news report went so far as to suggest mold is a

³⁶See Indoor Env'tl. Mgmt. Branch, Env'tl. Prot. Agency, Children's Health Initiative: Toxic Mold (2001), at <http://www.epa.gov/appcdwww/crb/iemb/child.htm>.

³⁷See N.Y. Comm. for Occupational Safety and Health, The Facts about Mold (2001), at <http://www.nycosh.org/moldfacts.html>.

weapon of “biological warfare.”) The three most common molds which are generally thought of as “toxic molds” are as follows:

- (1) *Stachybotrys*;
- (2) *Penicillium*; and,
- (3) *Aspergillus*.

Toxic Molds – *Stachybotrys*

Stachybotrys chartarum (also known as *S. atra*) is the most dangerous of the molds. It is a greenish black fungus that grows in very wet environments. Its spores are found in the soil and enter buildings after floods, pipe breaks or other sudden water intrusions. It grows on paper, tile, carpet and general organic debris. Because this mold occurs in ducts or covered surfaces, it may be present but not visible.

Stachybotrys generates six types of a class of chemicals called macrocyclic tricothecenes. Tricothecenes can cause severe or fatal lung disease and may be neurotoxic, causing behavioral difficulties. This fungus also produces immunotoxins; *spiro lactones* and *cyclosporin*. You may recognize *cyclosporin* as the drug which enables heart transplants by suppressing the immune system so as to prevent rejection of the foreign tissue. The combination of toxic and immunosuppressive effects creates the potential for significant health risk.

In general, there is a great deal of research on the impact of toxic molds in animals. Veterinarians know the impact on horses and donkeys eating moldy hay. *Stachybotrys*, for example, was first identified as the cause of disease in farm animals in Europe during the 1930s.³⁸ However, this same level of science is not as solidified with reference to humans. The first known human morbidity from it was identified in Chicago in 1986, wherein a family suffered from flu symptoms (diarrhea, dermatitis and general fatigue for five years) until the *Stachybotrys* was found and removed.³⁹ Research is proceeding in this area given the heightened level of interest from various governmental and private agencies.

Stacybotrys was targeted as the cause of infant deaths in a study commissioned by the Centers for Disease Control (“CDC”), which studied a cluster of infants who died from pulmonary hemosiderosis.⁴⁰ Common within all the homes was water damage and high levels of fungi. This study fuels tall tales of the ill-effects of mold on immune susceptible people. While the study was reversed years later by the CDC for questionable sampling techniques and other criteria widely criticized by the expert community, the initial study is still widely quoted on the internet and other media as conclusive proof that mold kills.

Toxic Molds – *Penicillium*

Penicillium is associated with allergies, asthma, respiratory infections and hypersensitivity pneumonitis. Notably, *Penicillium* does not produce Tricothecenes or immune altering toxins, which make them a less serious threat to health.

³⁸In most cases, the animals are exposed to the mold at a very high level to determine what, if any, adverse effects may develop. This data is difficult to extrapolate to humans because the level of exposure for humans is typically significantly lower. See Env'tl. Health Investigation Branch, Cal. Dept. of Health Services, *Stachybotrys chartarum* - a mold that may be found in water-damaged homes (2000).

³⁹See W.A. Croft, B.B. Jarvis & C.S. Yatawara, Airborne Outbreak of Tricothecene Toxicosis, *Atmospheric Environment* 20:549-552 (1986).

⁴⁰In lay terms, lung hemorrhaging. See Med-Web of the Hudson Valley, Indoor Environments Division Partner Alert: U.S. Environmental Protection Agency, at <http://www.hvmedweb.com/mw1/updates/moldgrowth.htm>.

Toxic Molds – Aspergillus

Aspergillus may cause disease. It also does not produce trichothecenes or immune altering toxins making it a lesser threat to health. One of the species of *Aspergillus*, *flavus*, produces aflatoxin B, which is one of the most potent carcinogens known to man (and is a frequent contaminant in peanuts). However, people traditionally do not eat household mold and the danger of it is acute toxicity, not carcinogenicity, so this potential impact is more of interest than alarm.

MEDICAL ISSUES: WHAT IS PROVEN AND WHAT IS JUNK SCIENCE; IMPACT OF MOLD EXPOSURE TO HEALTH OF INDIVIDUALS

There is no easy answer to the question of what and how much mold exposure is unhealthful. Below, we examine scientifically proven information regarding exposure to toxic molds as well as the unproven health impact. As set out in the causation section of this paper, this area is the weakest link for a claimant alleging that toxic mold has impacted the health of the individual—rich fuel for pre-trial motions discussed in the causation section *infra*.

Importantly, there are aggressive ongoing technical and scientific studies focused on developing standards in this area. In fact, there is a tremendous amount of attention and resources dedicated to the study of mold by both governmental and private researchers.⁴¹

In the context of litigation, it is essential that the trial attorney bring home the microbiology to the trier of fact. If defense counsel properly attacks the causation issue using the extensive case authority established through years of toxic tort and bodily injury litigation, very few cases of bodily injury should currently get to a jury. Extraordinary confusion exists among self-proclaimed experts in health departments and remediation companies. The merits of various remediation plans are often the subject of disagreement; fights as to how clean is clean are assuredly expensive battles.

Mold is both helpful and harmful

Mold runs the gamut of being helpful and harmful. On the one hand, the human body is reliant on mold for its proper functioning. In fact, mold is one of the essential ingredients in some of our favorite foods—bread, wine and beer. On the other hand, mold can be lethal. Microbial “germ” warfare is responsible for the term “yellow rain” and for thousands of documented deaths from wartime use of mycotoxins from molds as recently as the Iraqi-Kuwait war.⁴² The dangers of mold have been documented since the time of the Bible.⁴³ As identified above, the “bad” molds generally fall into three categories, each of which require attention by the defense team.

⁴¹The ongoing research is both conventional and non-traditional. For example, expert Dr. James Craner recently completed the first human exposure baseline study involving 14 individuals who spent between two to six hours in a toxic mold contaminated Nye County Government Complex. Reportedly, after 20 minutes, most people were affected with burning eyes, nausea, itchy skin, bloody noses, headaches and fatigue. Results of this testing sequence have not been released. See *County Employees Participate in Baseline Study*, Pahrump Valley Times, July 20, 2001.

⁴²In fact, the microtoxins produced by stachybotrys are described as “extremely dangerous,” so dangerous that “it’s listed in a military manual as an agent of ‘biological warfare.’” See Kelly O’Donnell, *Toxic mold devastates homeowners*, MSNBC News (June 28, 2001), at <http://www.msnbc.com/news/593696.asp>.

⁴³Leviticus, Chapter 14, verses 33-57, mandates evacuation of the home when mold is detected. After a seven-day retreat, the home was to be inspected by a priest who determined whether the mildew had spread. If tearing down the infected walls did not remedy the problem, the house was deemed unclean and was to be demolished.” See *Leviticus* 14:33-57.

Mold Impacts Each Individual Differently

There is tremendous variation among the hundreds of thousands of mold species with respect to their propensity to propagate and cause health effects. A similar, almost idiosyncratic, response to mold is found among individuals: some people can withstand huge doses of mold, while others are more susceptible.⁴⁴ This is one of the reasons that agencies have such difficulty establishing standardized “safe” levels of mold. These uncertainties are compounded by the implications of mixtures of mold species. In fact, some mold species might not produce particularly toxic reactions standing alone, but might mix with other mold species to concoct a highly toxic soup.

In view of the impact to different individuals, one thing is clear: the defense team should be particularly sensitive to environments where there are immune susceptible individuals. Schools, hospitals and health care facilities immediately come to mind because each environment houses those who potentially have less developed immune systems.

Health Effects from Exposure

All of us are exposed to molds. The health impact, however, is highly specific to the individual. Depending on the type, exposure and individual, an individual may experience: (a) allergic / immunologic reactions; (b) infections; and (c) toxic effects.

Allergic Reactions

Perhaps the most common health problem associated with exposure to mold is an allergic reaction which ranges from mildly uncomfortable to life-threatening illnesses (e.g., severe asthma attack). Common signs or symptoms of an allergic reaction to mold include:

- Watery eyes
- Runny nose and sneezing
- Nasal congestion
- Itching
- Coughing
- Wheezing and impaired breathing
- Headache
- Fatigue

Infections

While not as common as allergies, there are several types of mold related infections. These include *aspergilloses* in susceptible people and allergic fungal sinusitis. Other fungi, which grow in soil or are carried by birds (e.g., *histoplasmosis*), can cause infections but are rare in indoor exposures. The classifications of infections caused by fungi are systemic, opportunistic and dermatophytic.

1. ***Systemic Infections.*** Systemic infections include blastomycosis, coccidioidomycosis, histoplasmosis, and paracoccidioidomycosis. In the majority of the cases, the infection is initiated when spores of the fungi that cause these diseases are inhaled. A large majority of these infections produce minimal or no symptoms. However, immunosuppressed individuals may de-

⁴⁴See Env'tl. Health Investigation Branch, Cal. Dept. of Health Services, *supra* note 35, at 19.

velop chronic localized infection or the disease may disseminate throughout the body, which generally proves fatal.

2. **Opportunistic Infections.** Opportunistic infections are generally limited to individuals with impaired immunological defenses. This is a secondary infection to a primary disease or condition. Opportunistic fungi are facultative parasites, meaning they can use both living and dead substrates for nutrients. Common opportunistic species include *Aspergillus*, *Candida*, *Cladosporium*,⁴⁵ *Cryptococcus*, *Muco* and *Rhizopus*
3. **Dermatophytes.** Dermatophytes are a group of fungi that infect the hair, skin and nails. This infection occurs through direct contact with an infected individual or indirectly by sharing clothing, hair brushes, towels and the like. Transmission to humans from an environmental source is rare; however, outbreaks from the soil have been reported.

Toxic Reactions

One of the areas least studied and understood is the area of toxic reactions from exposure to molds. This area addresses exposure to toxins on the surface of the mold spores, not with the growth of the mold in the body. There are few case studies that report toxic molds (those containing certain mycotoxins) inside homes, but they can cause unique or rare health conditions, such as pulmonary hemorrhage or memory loss.

Mold that produces toxins has potential to inhibit the immune response, which has devastating potential for persons with pre-existing disabilities ("immunocompromised" hosts), but also is of concern to healthy people.⁴⁶

Widely inaccurate statements as to toxic reactions can be found on the internet. Some point to a series of studies published by the Centers for Disease Control ("CDC") in December 1994 and January 1997, examining the deaths of infants in contiguous zip codes that suffered from pulmonary hemosiderosis ("PH") (also referred to as acute idiopathic pulmonary hemorrhage). The studies led the CDC to conclude at the time that PH was associated with major household water damage during the six months before illness and increased levels of measurable household fungi, including the toxin-producing mold *Stachybotrys chartarum*. These toxins may irritate the lining of the infant's lungs and weaken developing blood vessels, eventually leading to pulmonary bleeding. In addition, the CDC indicated that exposure to tobacco smoke in addition to indoor mold may increase an infant's risk of pulmonary hemorrhage.

These reports do not address a subsequent study by the CDC which concluded, based on the observations of outside experts, that this possible association was not proven.⁴⁷ Three factors contributed to the CDC's conclusions that *Stachybotrys chartarum* was not clearly associated with PH:

1. The reported odds ratio was statistically unstable and potentially inflated;
2. Sampling methods were suspect. One investigator correctly inferred the identity of many case homes and wanted to be certain to identify cultural fungi in these homes. This resulted in the collection of twice the number of air samples from case homes as those collected from control homes. Moreover, the sampling technique was aggressive and non-standardized

⁴⁵Cladosporium is commonly found in the condensation reservoirs of refrigerators. Homes with poor ventilation may also serve as a source for this contamination. The general reaction is allergic because no mycotoxins are produced. See Dept. of Env'tl. Health & Safety, Univ. of Minn., Indoor Fungi Resources, Fungal Glossary (1996), at <http://www.dehs.umn.edu/iaq/fungus/glossary.html>.

⁴⁶These pre-existing disabilities or susceptibilities, along with the presence of a toxic mold, may form the basis of an ADA complaint. See Americans with Disabilities Act of 1990 (ADA), 42 U.S.C.A. § 12101 (West, WESTLAW through 2000).

⁴⁷See Center for Disease Control, *Update: Pulmonary Hemorrhage/Hemosiderosis Among Infants—Cleveland, Ohio, 1993-1996*, Morbidity and Mortality Weekly Report, March 10, 2000, at 180.

which generated artificial aerosols for sampling. This had the impact of increasing the potential for differential exposure assessments of cases and controls if sampling were conducted in an unblended manner; and

3. Among homes classified as water damaged, the presence of any cultural airborne *stachybotrys chartarum* was identified in a similar percentage of case and control homes.

Based on these three factors, the evidence from these studies was deemed insufficient to support an association between *Stachybotrys chartarum* and PH.

Exposure to Mold Does Not Equal Illness

The presence of fungi on building materials, as identified by a visual assessment or by bulk/surface sampling results, does not necessarily mean that people will be exposed or exhibit health effects. In order for humans to be exposed indoors, fungal spores, fragments, or metabolites must be released into the air and inhaled, physically contacted (dermal exposure), or ingested.

Whether or not symptoms develop in people exposed to fungi depends on the nature of the fungal material (e.g., allergenic, toxic, or infectious), the amount of exposure, and the susceptibility of exposed persons. Susceptibility varies with genetic predisposition (e.g., allergic reactions do not always occur in all individuals), age, state of health, and concurrent exposures. For these reasons, and because measurements of exposure are not standardized and biological markers of exposure to fungi are largely unknown, it is not possible to determine "safe" or "unsafe" levels of exposure for people in general.⁴⁸

DEFENDING THE TOXIC MOLD CLAIM: STRATEGIES FOR CONSIDERATION BY THE DEFENSE TEAM

Armed with an understanding of what constitutes toxic mold and the health effects of mold exposure together with trends in terms of litigated product subject to the claim and potential settlement and verdict values, we are now ready to examine the strategies for handling any claim involving allegations of toxic mold.

Implementation of protocols for handling mold claims is critical. Having a standardized process of responding to the mold claim in a timely manner is essential. Actively trying to resolve mold claims as they are presented is key. For claims which are incapable of settlement, the defense team should be prepared to aggressively defend the claim.

This next section will delineate the steps and tasks necessary for defending the toxic mold claim. This section will address the following strategies:(1) Expert / Consultant Selection;(2) Contractual Risk Transfer Vehicles; (3) Impact of Jurisdictionally Sensitive Issues; (4) Inspection, Testing and Remediation Issues; (5) Post Remediation Issues / Goals; and (6) Defense Strategies.

⁴⁸See Bureau of Env'tl. & Occupational Disease Epidemiology, N.Y. City Dept. of Health, Guidelines on Assessment and Remediation of Fungi in Indoor Environments (2000), at <http://www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html>.

STRATEGY: EARLY IDENTIFICATION AND SELECTION OF KEY EXPERTS

Early in the life of the mold claim, one of the initial decisions is evaluation and selection of the necessary experts required to defend the claim. While this selection is dependent on the facts presented, there are a number of disciplines to consider.

We urge early retention of experts for a number of reasons. First, it allows you to select the best qualified expert from the available pool, thereby removing that individual as a candidate for other parties in the case. Second, it allows the defense time to work with the chosen consultants in order to strategically identify key issues required to defend the case. Last, based on the consultation, it will aid in a focused discovery plan which, in the end, will translate into considerable savings. Based on this attack plan, the defense team will have up front a strong idea of the costs associated with the defense of the mold claim. As a result, it will be able to effectively control this component.

Issues with respect to causation and appropriate remedial protocol will assuredly create contention. Scientific accuracy will most likely be disputed, and where the expert fails to employ methodology acceptable to the scientific community, the defense may exclude the admissibility of the evidence.⁴⁹ Courts impose requirements that the opinion of the expert be based on measures generally accepted by the scientific community (*See discussion infra re causation*).

Given the complex causation issues, inter-disciplinary approaches may be beneficial not only in determining the nature and extent of the problem, but in developing a cohesive strategy and a consistent explanation for causation.

Depending on the type of illnesses claimed, it may be necessary to seek advice from a number of specialties. This list is by no means exhaustive, but is provided so you have a basic understanding of the areas of expertise involved. They are as follows:

Indoor Air Quality Issues

1. Industrial Hygienist (always required for sampling of environment)
2. Microbiologist
3. Mycologist (prevalence, growth and toxicity of various molds)
4. Toxicologist (animal studies / human health risks from mold)
5. Ventilation

Medical Issues

1. Allergist (clinical effects of mold and relationship to other causes)
2. Dermatologist
3. Gastroenterologist (causes of GI symptoms)
4. Occupational Physician
5. Pulmonary Specialist (clinical effects of mold on the respiratory tract)
6. Treating Physician(s)
7. Rheumatologist (potentially required to evaluate autoimmune disease)

⁴⁹Uncertain causation conclusions based on uncertain scientific methodology is often fondly referred to as "junk science." See, e.g., *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

Mental Health Issues

1. Neuro-psychologist (cognitive/behavioral effects of mold)
2. Psychologist
3. Psychiatrist

Construction Issues

1. Architectural
2. Cost Estimation
3. Concrete
4. General Contracting
5. HVAC
6. Plumbing
7. Roofing
8. Soils
9. Waterproofing
10. Windows
11. Remediation
12. Statistician
13. Valuation

At the same time, the defense team should have a strong working knowledge of the writings and opinions of the leading experts in the emerging tort of toxic mold. This includes Dr. Philip Morey (microbiologist), Dr. Eckard Johannung (occupational physician) and Prof. Bruce Jarvis (researcher on triconthecenes). If counsel does not have a working knowledge of these individuals, it is incumbent to ensure that the chosen defense experts have a working familiarity with these individuals.

STRATEGY: EARLY FACTUAL ANALYSIS OF CONTRACTUAL RISK TRANSFER

It is imperative to evaluate at the earliest juncture possible the ability to transfer the risk presented by the toxic mold claim. This requires immediate evaluation of a number of factors which are set out below:

Identification of Potentially Responsible Parties: Depending on the genesis of the toxic mold growth, a host of parties may be implicated in the claim for which there will be indemnification rights, either express or equitable. To this end, it is imperative to gain an immediate understanding of the parties involved, the scope of work performed on the project, and the cause of the damages alleged. Tenders of defense and indemnity should be sent via certified mail at the earliest juncture in order to preserve arguments regarding early tender dates and the benefits that early tenders provide.

- A. **Joint and Several Liability Analysis.** The defense team should be cognizant of the relationship between the potentially responsible parties. In other words, if responsibility is borne by several parties for the condition which is causing the mold growth, the defense team needs to evaluate the ability to prosecute, or transfer the risk, for this condition as between those parties. This issue is factually dependent on the scope of work of the parties. This requires analysis of the contract documents in terms of language that imposes this responsibility. To the extent this information is missing from the contract documents, reference to the jurisdiction and the ability to recover under equitable theories must be explored;
- B. **“Empty Chair” Analysis:** Under the umbrella terms of “empty chair” or “missing parties,” one must take into account those parties which are potentially responsible for the mold growth, but who are not involved in the claim or litigation. These parties may have no assets, insurance policies or otherwise, which can be held to answer for the claim. Bankruptcy protection may bar recovery from these parties under theories of contribution. Early in the life of the claim, an analysis of the viability and liability of these parties must be conducted in order to gauge your clients potential exposure. To the extent there are missing parties, theories of joint and several liability come into play and operate to apportion liability among the parties.

Identification of Potentially Implicated Policies of Insurance: This task involves an analysis of the policies which could be implicated given the allegations made within the complaint. Be mindful that the toxic mold claim can involve allegations of both property damage and bodily injury. Accordingly, policies with property damage exclusions may be implicated by the bodily injury aspect of the claim. As a result, you may have mixed policies defending for different aspects of the damages claimed.

- A. **Exclusions / endorsements.** It is critical to review the exclusionary language in the policies or endorsements, which may amend the coverage afforded for the incident. Please be mindful that a body of case law interpreting policy exclusions and endorsements with respect to toxic mold claims have not had the opportunity to fully develop. Many insurers may argue that the asbestos cases are analogous. However, those cases can be distinguished. Also, newer policies may include endorsements and exclusions designed to exclude coverage for mold. These must be examined.
1. **Co-Insurance Clauses.** This involves examination of the presence of another policy of insurance which may cover the same loss. It may involve overlapping time frames, involve different carriers, and involve a unity of relationships as between the parties named as the insured on the policy. In short, it involves an aggressive examination of the other policies of insurance which may afford coverage for the claims framed by the toxic mold claim;
 2. **Additional Insured Entitlements.** Immediate attention should be given to whether or not additional insured status is available for the loss and, to the extent it is afforded, tenders should be immediately forwarded;
 3. **Identification of Theories of Liability:** Working as a team, counsel, claim professionals and risk managers need to have a strong understanding of the allegations and theories of liability articulated within the claim as well as the relief sought. This is important in terms of ascertaining the potential contractual risk transfer vehicles available. Indeed, you should understand not only the claims articulated against your client/insured, but also all claims and theories of liability under which you will be able to look to the other potentially responsible parties. Accordingly, this factual analysis would include evaluation of the following issues:
 - Party making the claim (first-versus third-party; implication in terms of regulations governing relationships and liability growing from same);
 - Notice (which also dovetails with the statute of limitations issues discussed *infra*);

- Personal Injury Claims (who is making them; consideration of minors and ability to compromise these claims);
- Property Damage Claims;
- Punitive Damages;
- Occurrences / Causes;
- Continuous nature of the cause of the mold.

Contractual Analysis. Analysis of the contractual provisions are essential to determining the risk transfer mechanisms available. This analysis should include consideration of the following issues:

- A. **Indemnity Analysis.** The defense team needs to immediately ascertain the presence of any indemnity agreements within the contract documents, to whom indemnity is owed and the characterization of that indemnity. Careful consideration should be given to the verbiage of the indemnity agreement in light of the decisions handed down over the past three years, which discuss the impact the wording can have on the duties to defend and indemnity. Tenders under the indemnity should be made early and in an abundance of caution by way of certified mail;
- B. **Insurance Entitlements.** The defense team should analyze the insurance requirements set out within the contractual documents to flush out the obligations of the contracting parties. Often, there is a requirement to name parties as an additional insureds, which may automatically convey this status depending on the insuring policy. While the better practice is to secure the actual endorsements before work is given as opposed to prosecuting an action for breach of contract for failing to name as an additional insured, the analysis nonetheless is vital in the effort to fully maximize the ability of the parties to shift responsibility for the legitimate claim. Again, tenders should be immediately made to all the insurers potentially exposed for the claim;
- C. **Choice of Forum Analysis.** Depending on the contractual relationships, the forum for dispute resolution may be arbitration. The cases discussing arbitration are clear that participation in various aspects of formal litigation may operate as a waiver to the right to arbitrate. Accordingly, early analysis of the choice of forum clauses is necessary. At the same time, the defense team should weigh the pros and cons of arbitration as opposed to allowing the case to proceed before a trial court as there are decided pros and cons to each forum choice;
- D. **Analysis regarding ADR Provisions.** The contractual analysis may reveal a mechanism for alternative dispute resolution prior to formal litigation. Counsel should ascertain whether the right to attorney fees is waived if litigation is commenced without resorting first to ADR. To the extent the matter is a fresh claim, counsel should consider resolving the toxic mold claim at the earliest juncture possible through invocation of this provision;
- E. **Attorney Fee Analysis.** As set out above, the prosecution of a toxic mold complaint can indeed be an expensive endeavor. To that end, early analysis of the ability of the claimant to seek his or her fees associated with the prosecution of the complaint is paramount.

STRATEGY: EARLY ANALYSIS OF JURISDICTION SPECIFIC ISSUES

Mold claims are increasing in number. However, the number of mold claims that have been tried and appealed is truly limited. As a result, guidance from the courts in terms of case law interpretation is scant at best.

However, the judiciary has given us clues as to how they will rule on various issues. We also know how the courts have ruled on issues which will undoubtedly be presented within the context of the toxic mold claim. Understanding these issues and how the courts are likely to rule is important in terms of early evaluation of the claim involving claims of toxic mold.

The party subjected to the toxic mold claim needs to make an early evaluation regarding the prior interpretation of the judiciary as to the clauses which may afford coverage. Whether the state is traditionally pro insured or pro insurer is certainly a factor which weighs into this consideration. Other policy interpretations made on the issues of environmental or toxic tort claims, releases and damages are certainly persuasive indicators of the direction the court will take.

Within these seminar materials are more in-depth discussions of the coverage issues which will arise. To avoid duplication, we merely outline the issues which should be evaluated early in the life of the mold claim. They are as follows:

- Trigger of coverage;
- Exclusions:
 - Absolute Pollution exclusion
 - Scope of "Pollution"
 - Bodily Injury Claims
 - Sudden and accidental exclusion;
 - Owned property exclusion
 - "Mold" exclusion
- Notice – late notice issues;
- Personal injury coverage – whether policies are implicated which otherwise would not be triggered for property damage;
- Allocation issues;
- Duty to defend;
- Occurrence;
- Known loss/ progressive loss;
- Efficient proximate cause;
- Faulty workmanship;
- Intra-Carrier battles: vertical versus horizontal exhaustion and the role of the additional insured carrier – are there primary policies which must exhaust before the excess policies drop down.

STRATEGY: COST-EFFECTIVE INSPECTION, TESTING AND REMEDIATION

After you have selected your experts and evaluated the contractual risk transfer issues, the next battleground you will confront deals with the inspection sequence, testing and remediation issues. Central to this issue is the question of “how clean is clean.” Battles over this issue can be assuredly expensive.

From a litigation standpoint, prompt inspection, testing and remediation can result in capping the potential damages. While this will not necessarily avoid a lawsuit, it will provide some certainty as to the potential exposure faced by plaintiffs making bodily injury claims.

From a claims standpoint, it is important to note that the large verdicts in mold exclusively involve allegations of bad faith and/or poor claims handling. Accordingly, it is imperative to implement protocols to avoid this result. Mold investigation and homeowner complaints should be taken seriously. Delays and unwarranted dismissals of complaints are fuel for subsequent litigation.

Time is of the essence. As detailed in the “sticker shock” section of this paper, failure to immediately address claims of toxic mold increases the risk that the mold will spread in the interim, which serves to increase the cost of remediation (as well as increase the causes of action to include intentional allegations based on the claim handling).

In the end, both the plaintiff and defense share the same goal of remediation – “to remove or clean the contaminated materials in a way that prevents the emission of fungi and dust contaminated with fungi from leaving a work area and entering an occupied or non-abatement area, while protecting the health of workers performing the abatement.”⁵⁰ “In all situations, the underlying cause of water accumulation must be rectified or fungal growth will recur.”⁵¹

What, then, is the best approach for tackling the inspection, testing and remediation issues? While inspection and testing are variables that are factually driven and should best be solidified in concert with the chosen consultant(s), remediation is an issue where the battle of how clean is clean can be won.

Mindful that no standards exist for acceptable levels of mold in an indoor environment, our recommendation is to consistently ***take the most conservative approach.*** By operating in this manner, you will avoid being open to criticism post-remediation for improper handling as well as to the second generation lawsuits discussed above. This requires a working familiarity with the standards which have been promulgated.

The EPA is reportedly in the process of working on remediation guidelines for residential housing, the focus of which will be a “how to” guide as opposed to a treatise aimed at those engaging remediation companies to perform this work. However, the EPA has published a protocol for schools and commercial buildings. This guide is clearly the prevailing standard for remediation and prescribes various measures to take depending on the amount of mold identified.

For residential housing, the most conservative guidelines are currently promulgated by New York City Department of Health, which similarly prescribe protocols to follow according to the amount of mold identified.⁵² For comparative purposes, we have attached to this paper a chart which contrasts the guidelines.

With reference to health care facilities, one should be mindful that the remediation guidelines promulgated by the EPA for commercial buildings are most likely not applicable. The presence of immune-

⁵⁰See Bureau of Env'tl. & Occupational Disease Epidemiology, *supra* note 45, at 24.

⁵¹See *id.*

⁵²New York City Department of Health convened a panel of experts in 1993 to develop policies for medical and environmental evaluation and intervention. Three levels of abatement based upon square footage of contamination were developed: small isolated areas, large isolated areas, and extensive areas. These guidelines were revised in the year 2000 to include five levels of abatement. See *id.*

compromised individuals require perhaps the strictest protocols for the mold removal. In other words, it is highly unlikely that level I remediation could be accomplished in this environment. Separate protocols for this category of facilities should be consulted.

STRATEGY: ATTACK CAUSATION— PLAINTIFF’S WEAKEST LINK

One of the most significant problems facing plaintiff’s counsel in a Toxic Mold case is proving *causation*. Perhaps more than any other area, this is a circumstance in which vigorous lawyering can knock out much of the bodily injury component at an early stage which can have the aggregate effect of gutting the plaintiff’s case in chief.

Plaintiffs seeking to prove a toxic mold case are going to have to establish two causation elements—general and specific causation. *General causation* is the demonstration that a given toxic substance, in the particular location and for a particular duration, *can* cause the type of illness or injuries alleged. *Specific causation* is the proof that the toxic chemical actually *did* cause the injuries claimed in the particular case in question. Establishment of both types of causation requires expert testimony, which is subject to exclusion or limitation under the *Daubert*⁵³ case and comparable rules in various state courts that still follow the *Frye*⁵⁴ line of cases.

General Causation

In a federal case, or in a jurisdiction following the federal rule, the Court is required under *Daubert* and its progeny to be the *gatekeeper*—to keep out unreliable expert testimony in technical scientific areas. It must apply Fed.R.Evid. 702, which limits the admissibility of scientific or technical evidence by assigning to the trial judge the task of ensuring that an expert’s testimony rests on a reliable foundation and is relevant to the task at hand. The federal standard determines initially whether the expert’s underlying reasoning or methodology is scientifically valid and whether it can properly be applied to the facts at issue. Considerations that bear upon this inquiry are:

- (1) Whether the theory or technique can be tested
- (2) Whether it has been subjected to peer review and publication
- (3) Its known or potential error rate (statistical validity), and
- (4) Whether it has attracted widespread acceptance within a relevant scientific community.

The inquiry is a flexible one, and its focus must be on the principles and methodology, not on the conclusions that they generate.

For those jurisdictions following the *Frye* line of cases, the standard is even greater than under the Federal Rule. *Frye* and its progeny *require* that the techniques or methods used are “generally accepted within the scientific community”, one of only several factors to be considered by the Court under the more liberal Federal standard.

The fact that the Court makes these judgments has tremendous value to the defense, as the matter will simply never get to the jury for a decision if the Court does not find that the expert opinions are supportable under the applicable rules.

⁵³See *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 580 (1993)

⁵⁴See *Frye v. United States*, 293 F.2d 102 (1923)

Specific Causation

Both scientific and construction experts will be used in trying to determine the source or reason for the existence of toxic mold exposure in a particular building. Plaintiffs may argue, expressly or inferentially, that the mere existence of toxic mold in a building for which a defendant may have responsibility (as a developer, contractor, landlord or owner) gives rise to liability for resulting injuries. However, the critical factor necessary for growth of toxic mold is the existence of substantial moisture levels, which can obviously develop from a variety of circumstances. The failure to properly care for the premises or an unusual condition at the premises for which a builder or owner should have no responsibility could well give rise to a complete defense.

Specific Causation in a mold case can often be broken down as follows:

- (1) Identification of type of mold alleged to result in injuries.
- (2) Specifics relating to exposure, proximity, duration and alleged exposure pathway.
- (3) Medical issues, such as the onset or absence of symptoms relative to the specific exposure alleged.

Assessment of exposure is often difficult due to the absence of a representative area within which to take a sample. Exposure can occur both through respiratory or dermal absorption pathways. The air flow in the building is rarely consistent, which means that the mold levels will fluctuate with the amount of water in the building. Mold is also found outside of the ambient environment and may vary on interior surfaces.

Is the connection between the exposure and the specific injuries or illness alleged open to reasonable dispute or other explanation? Mold exposure differs from many toxic substances in that the defense should be able to make a relatively strong argument that removal of the individual from the site of the toxic mold exposure should result in a fairly rapid reduction in symptomatology.

Often, plaintiff's experts will be able to demonstrate only an *association* between the exposure and the injury or illness alleged. In 1965, Sir Bradford Hill established specific criteria to evaluate whether a disease was *caused* by chemical exposure as opposed to merely being *associated* with it. Utilization of the Bradford Hill Criteria is one way to attack faulty causation assumptions of the plaintiff's experts. These criteria include:

- (1) Strength of association
- (2) Consistency
- (3) Specificity
- (4) Temporality
- (5) Dose response
- (6) Plausibility
- (7) Coherence
- (8) Experiment

The Bradford Hill Criteria can be utilized to assess whether toxic mold exposure is responsible for a disease. In addition to applying these criteria to liability as well as expert testimony, this weapon should be utilized in and with a *Daubert/Frye* Motion in Limine, motions for summary judgment, and as an outline for cross-examination.

Medical Monitoring

It is anticipated that plaintiffs will make every effort to recover damages based on the alleged need for medical monitoring because of the dramatic increase in the value of the case that such monitoring creates, often involving monitoring of a large number of individuals over an extended period of time. However, in a toxic mold case, where damages should not include permanent injuries or diseases, the need for medical monitoring should be diminished. In some cases, plaintiffs have argued that the only way to determine whether a proper remediation has occurred is to conduct medical monitoring of residents. This is a bootstrap argument, however. There are more than adequate means by which to establish that remediation is complete which do not require future medical testing of residents.

DEFENSE: EXPLORE VIABILITY OF STATUTE OF LIMITATIONS

Bodily injury claims typically have a shorter statute than the property damage from latent or patent defects. While this body of law has not developed to the level we expect, this assuredly is going to be an issue in decisions handed down over the upcoming decade.

The threshold issue is: when does mold exposure raise itself to the level of concern such that it triggers the knowledge of the individual sufficient to invoke the proverbial clock ticking on the time within which the claim must be presented? Also dovetailing with this issue is whether or not repairs or actions by the potentially culpable parties may operate to equitably toll the statute.

In California, a plaintiff is deemed to be aware of his or her injuries upon suffering "appreciable and actual harm."⁵⁵ Case law seems to favor the defense if facts can be developed to show the claimant is aware that mold is causing the injury. The seminal case found that plaintiff's cause of action accrued when she suffered actual and appreciable harm in the form of extreme allergic reaction and severe asthma due to exposure to mold and *not when her medical condition was subsequently diagnosed as immune dysregulation. The court further held that the delayed discovery rule was not applicable to toll the running of the statute of limitations where the plaintiff had actual knowledge of the negligent cause of the injury.*⁵⁶

Experts are in accord that claims of bodily injury require complete examination of the plaintiff's prior medical history and other environmental factors in conjunction with the causation aspect of the mold claim. At the same time, this information can also be powerful evidence which may support a dispositive motion predicated on the operative time bar in the jurisdiction the claim is brought. Counsel should recognize that case law is scant on the issue as it relates to mold claims and arguments will be made to follow the line of cases relating to asbestos exposure. The asbestos line of cases can be distinguished and probably will not have an application to the time bar of the mold claim.

CONCLUSION

Toxic mold claims are the emerging tort of the next decade. Settlement and verdict values to date underscore that this is a tort to take seriously. However, the big numbers do not mean that there is legitimacy to every claim and that the battle cannot be won. Proactive handling of toxic mold claims is imperative. Adoption of protocols for utilization in every case involving toxic mold is prudent.

Indoor air quality is front and center in the media's attention. Efforts should be made to tackle and resolve early claims involving toxic mold allegations. To the extent the cases cannot be resolved, the defense team needs to be prepared to fight the claim vigorously. Causation is the weakest link in the plaintiff's case in chief and should be addressed as such in timely pre-trial motions.

⁵⁵*Davies v. Krasna* (1965) 14 Cal.3d 502.

⁵⁶*Miller v. Lakeside Village Condominium Associates, Inc.* (1991) 1 Cal.App.4th 1611.