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The Dangers of Mold includes information for anyone who needs to understand the *real* scary-stuff surrounding mold and mold claims.

We understand that there is an enormous volume of confusing and contradictory information available on the topic of mold. Are the “mold experts” you are facing giving you the straight story, or are they using the complexity and media hype as scare tactics? While we don’t promise to solve your problems, we will help you cut through the haze surrounding the issues of a mold claim, who you should call for help, who you might blame, and where to find more information that you can rely upon.

The health issues that have been widely reported in the media will be reviewed, but it does not stop there. The Dangers of Mold also includes: expenses for expert inspection and testing, remediation, alternative living expenses and legal costs, business interruption, insurance coverage with skyrocketing costs or a lack of availability, bad publicity and more.

Pete Fowler is active as a California General Contractor, Certified Professional Cost Estimator, Certified Inspector, Construction Consultant, author and speaker regarding construction topics. Focusing on construction projects and buildings suffering distress, Mr. Fowler has analyzed damage, performed testing, specified and overseen repairs, performed repairs as a contractor and testified on a wide variety of construction issues.

Outline

I. Introduction to the Dangers of Mold

- Why Worry?
- Leaks Cause Mold
- In the Hot Seat: developers, builders, contractors, suppliers, manufacturers, property owners, property managers, real estate professionals, home owners associations, insurance companies, insurance professionals, etc...
- Expenses
 - Testing / Investigation / “Expert” Costs, Remediation Costs, Alternative Living Cost, Attorney Fees, Judgments/Verdicts (including pain & suffering and punitive damages)
 - Costs: Single claims cost from \$10,000-100,000 and more.
- Business Interruption: dealing with claims, personnel resource consumption
- Insurance: claim denials, high prices, exclusions (pollution), insurance companies going out of business or not offering coverage for those at risk of mold claims
- Bad Publicity, Angry Clients
- Statute of Limitations: Bodily injury, contractual indemnity and a link to medical problems might limit protection.

II. Why Now & How Bad is the Situation?

- Heightened Sensitivity
- Fear Factor & Media Hype: News stories including 48 Hours, The Wall Street Journal, The New York Times, and USA Today
- Attorneys: tuned in to insurance coverage, looking for “next asbestos”. 140,000 in California. 681,000 in the country. “Mold is Gold”.
- Scare Tactics: to scare insurers/owners into settling claims
- Lack of Standards or Scientific Certainty
- Evolving Construction Methods: Buildings are constructed more tightly allowing for the growth of mold.
- New Materials: including EIFS, MDF, “green-board”, products and assemblies that have not been time-tested in the “new indoor environment”
- Poor construction practices, lack of craftsmanship and training
- All of the above? Attorneys rarely make something from nothing
- Insurance Crisis: All commercial policies will have mold exclusion soon. Farmers Insurance Non-Renewal of Texas Policies affect 700,000, Florida insurers asked for mold exclusion, State Farm writing no homeowners in CA
- 2001 mold claims in Texas were \$843 million for 14,700 claims vs. \$153 million for 2,500 claims in 2000
- Courts: Most mold issues have not been ruled on by the courts
 - Texas family awarded \$32.1 million in 2001
 - Litigation of a Florida courthouse building fetched a \$14 million trial verdict
 - California jury awarded \$18.5 million (reduced to \$3 million) in 2000
 - Delaware woman awarded \$1 million in 1999 for permanent impairment
- Fraud: 7 Texans found guilty of \$5 million mold insurance fraud
- Legislation: California Toxic Mold Act of 2001

III. What is Mold & How Does It Effect Us?

- Mold: any form of multi-cellular fungi that live on plant or animal (organic) matter and in indoor environments. There are 100,000+ molds in the world.
 - To grow, mold requires food, moisture and time.
 - “Toxic” Molds: those purported to affect health can produce mycotoxins: Aspergillus, Fusarium, Penicillium, and Stachybotrys
- Health Effects
 - All molds can cause “allergic” type reactions in humans - coughing, wheezing, sneezing, irritated eyes and throat, and runny nose.
 - Others include fever, flu-like symptoms, fatigue, respiratory dysfunction, excessive regular nose bleeds, dizziness, headaches, diarrhea, vomiting, liver damage, impaired or altered immune function
 - Some are now saying mold causes cognitive impairment / memory loss, and pulmonary hemorrhage, near blindness and a loss of balance.
 - CDC says “no doubt people are suffering”
- Most Vulnerable: infants, children 6 years and younger, pregnant women, elderly, asthmatics, allergic individuals, immune compromised individuals
- How Much Mold Is Too Much?
 - No standards yet for acceptable exposure
 - There are also no tests for verifying human exposure

IV. Inspection & Testing

- Standards: No definitive authority. NYC Department of Health & Mental Hygiene, Environmental Protection Agency (EPA), U.S. National Center for Disease Control (CDC), Texas Department of Health and Texas Department of Insurance, American Industrial Hygiene Association (AIHA)
- Inspection
 - Visual Inspection is the most important initial step. Perhaps 50% of microbial problems are not visible.
 - Destructive testing
- Testing
 - Should be performed by an industrial hygienist
 - NYC says bulk or surface sampling is not required to undertake remediation
 - NYC says air sampling for fungi should not be part of a routine assessment. Air sampling methods for some fungi are prone to false negative results and cannot be used to rule out contamination
 - Microscopic (visual) identification of the spores/colonies requires considerable expertise
 - Must test indoor and outdoor environments to compare levels

V. Remediation

- Standards: No definitive authority. OSHA hazardous work standards referenced.
 - NYC Department of Health & Mental Hygiene
 - Environmental Protection Agency
 - American Conference of Governmental Industrial Hygienists (ACGIH)
- Hazard Communication to workers and occupants
- Fix the Source
- Isolation and Containment of Work Areas
 - Evacuation of buildings
 - Level I, II, III, IV and V
- Personal Protective Equipment
- Treatment of Damage
 - Building Components (Non-porous - hard surfaces, porous materials)
 - Damaged or exposed content items (clean or discard?)
 - Use of biocides
- HVAC (Heating, Ventilating, Air Conditioning) Systems
- Clearance Criteria
- Training and Qualifications: Contractors and Remediation Workers (OSHA)

VI. Prevention

- Build it right!
- Training: designers, builders (supervisors as well as workmen), suppliers, manufacturers, and all building industry personnel
 - Civil: move water away from structures
 - Roofing: Manufacturer's installation guidelines or trade publications such as NRCA Roofing and Waterproofing Manual
 - Walls: Upcoming ASTM standard "Design and Construction of Low-Rise Frame Building Wall Systems..."
 - Fenestration: ASTM E 2112 – Standard Guide for the Installation of Doors, Windows and Skylights, AAMA Installation Masters
 - Mechanicals: ASHRAE
- Testing
- Assemblies that are not time tested need to be thoughtfully designed, carefully installed and rigorously tested
- Education of Consumers: Keep houses dry, identify leaks immediately, only professional repairs. Keep relative humidity well below 60%.
- Risk Management: Make sure you are ready when a claim comes.

Organizations / Sources of Information

#	Name	Contact Information
1	Certified Mold Inspectors and Contractors Institute (CMICI)	www.indoorpolution.com
2	Texas Department of Health	www.tdh.state.tx.us/beh/iaq/
3	Texas Department of Insurance	www.tdi.state.tx.us/commish/mold.html
4	Centers for Disease Control & Prevention (CDC)	www.cdc.gov
5	Washington State Department of Health	www.doh.wa.gov
6	Southwestern Insurance Information Services	www.siiinfo.org
7	American Industrial Hygiene Association (AIHA)	www.aiha.org
8	Health Canada	www.hc-sc.gc.ca/english/index.html
9	United States Environmental Protection Agency (EPA)	http://www.epa.gov/iaq/molds/index.html
10	American Conference of Governmental Industrial Hygienists (ACGIH)	www.acgih.org
11	Report of Microbial Growth Task Force	www.aiha.org
12	Alliance Building Consultants, Inc. (Pete Fowler)	T: (949) 361-2510 pf@alliancebldg.com

References / Back-Up

#	Document	Author	Contact
1	"Mold Update" Web Site	National Association of Mutual Insurance Companies	www.moldupdate.com/
2	Review Of Practices For Mold Remediation	Texas Department Of Health	www.tdh.state.tx.us/beh/iaq/
3	CA Toxic Mold Act of 2001	CA State Legislature	www.ca.gov
4	Guidelines on Assessment and Remediation of Fungi in Indoor Environments	NYC Department of Health & Mental Hygiene	nyc.gov/html/doh/html/epi/mol/drpt1.html
5	Report for Assemblyman Lowenthal	California Research Bureau	www.library.ca.gov
6	Mold Remediation in Schools and Commercial Buildings	Environmental Protection Agency (EPA)	www.epa.gov/iaq
7	Fungal Glossary	U. of Minnesota Dept. of Environmental Health & Safety	www.dehs.umn.edu/iaq/fungus/glossary.html
8	Standard and Reference Guide for Professional Water Damage Restoration	Institute of Inspection Cleaning and Restoration: Document IICRC S500	www.iicrc.org
9	Should You Have the Air Ducts in Your Home Cleaned?	USEPA	www.epa.gov/iaq/pubs/airduct.html
10	Construction Defect Attorneys	Robertson, Vick & Capella	http://rvclaw.com/
11	"Scary" Web Information	Unknown	www.toxic-mold-tort-news-online.com
12	"Scary" Web Information	Unknown	www.a-toxic-mold-atorney-for-you.com