



Mold, A Growing Concern

A Seminar For Real Estate Professionals including;
Appraisers, Real Estate Sales Professionals, and
Home Inspectors



Course Instructional Design Overview

0.2

The educational offering you are about to undertake is designed to allow you to consider the main themes and ~~accommodate~~ assimilation of ~~same~~ the material. This is accomplished by providing video breaks and/or audio narratives that provide a different perspective for the same theme presented in text.

These techniques will allow you to reflect on the course content to connect it to your prior knowledge and resolve any conflicts which new knowledge may create.

In many cases we have provided information that dates back to the late 1990s, or even 4000 years ago. In doing so we are supplying historic perspective as a foundation for our current educational themes.

Your Instructor is: Francis X. (Rich) Finigan





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2014-2015 7 Hour Equivalent USPAP Update Course: 1.1.0 When, Why, & How USPAP Changes Occur

When, Why & How USPAP Changes Occur

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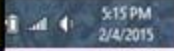
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Access all course documentation here. This information will remain available while you are completing lesson materials. It will not be available during quizzes or exams, per regulatory requirements of USPAP.

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Course Orientation

The Course Orientation document is available by clicking on the “Course Orientation” link in the Learning Extras section located at the bottom of the screen.

If you have content questions, please contact Francis Xavier (Rich) Finigan at Info@Calypsoedu.com or call (802) 728-4015.



Introduction:

0.6

Welcome to *Mold a Growing Concern*.

Along with obtaining your continuing education and valuable information about mold, you'll be treated to one of the most graphically rich continuing education seminars ever produced.

Be sure to download the PDF student manual for future use as a resource in your office.

During this seminar we will explore some of the major issues with mold contamination.



Course Content Overview

An important element of this seminar is to provide the Real Estate Sales Professional and the Real Estate Appraiser with an understanding of each others respective responsibilities.

In this seminar, when we refer to Realtors®, Real Estate Sales Professionals, and Real Estate Appraisers as one group we refer to them as Real Estate Professionals.

When we refer to Realtors® and Real Estate Sales Professionals we refer to them as real estate sales professionals.

When situations within this seminar apply exclusively to either (one or the other) Real Estate Appraisers or Real Estate Sales Professionals, they will be identified uniquely. (i.e. Sales Professional or Appraiser)



Course Objectives

The Real Estate Professional will be able to:

- Identify conditions that exhibited characteristics consistent with mold growth or conditions that could support mold growth.
- Describe the liability in regards to mold.
- Define due diligence regarding mold contamination.



CHAPTER 1

The History of Mold



Learning Objectives

The Real Estate Professional will be able to:

- Determine and describe when mold was first reported in homes.
- Define the benefits of mold as well as its negative aspects.
- Identify when and why mold started to become a growing concern in the United States.



Summary

Mold is not a new issue in fact it's been a concern for so long that it's written about in the Bible. Mold contamination in homes was reported in the bible in Leviticus Chapter 14 verses 33-57, including remediation techniques.

Mold is a good thing and mold is a bad thing. Without mold there would be no cheese, wine or penicillin. It's been well known for centuries that mold can cause a host of significant health problems, but the research and science regarding when, why, and how people become ill from mold is emerging.

Mold can cause great harm to houses and the people who inhabit them.

During the 1970 Energy Crisis people started making more energy-efficient. This greater energy efficiency reduce natural ventilation in homes which in turn has helped to trap mold and moisture.



CHAPTER 2

What is Mold?



Learning Objectives

The Real Estate Professional will be able to:

- Identify what mold is classified as.
- Identify what mold contamination is.
- Describe various signs of mold contamination.



What Is Mold?

Mold is ubiquitous.

Contrary to most people's belief, there are guidelines established by credible sources like;

- EPA, with their ERMI (Environmental Relative Moldiness Index) which uses DNA testing to speciate fungi, and algorithms from thousands of case studies to develop their indices.
- ACGIH (American Conference of Governmental Industrial Hygienists) in "Bioaerosols: Assessment and Control" 1999 edition, identifies comparisons that may indicate significant mold contamination.



What Is Mold?

Before 1969 mold was thought to be a plant, but because it didn't produce photosynthesis it was then classified in its own kingdom, known as the FUNGI kingdom.

In the fungi kingdom there are;



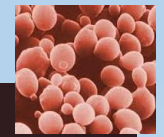
mushrooms,



molds,



and yeasts.





What Is Mold?

How does mold reproduce and grow?

Asexually w/conidia

Hyphae

Enzymes

Sporangium

or with spores

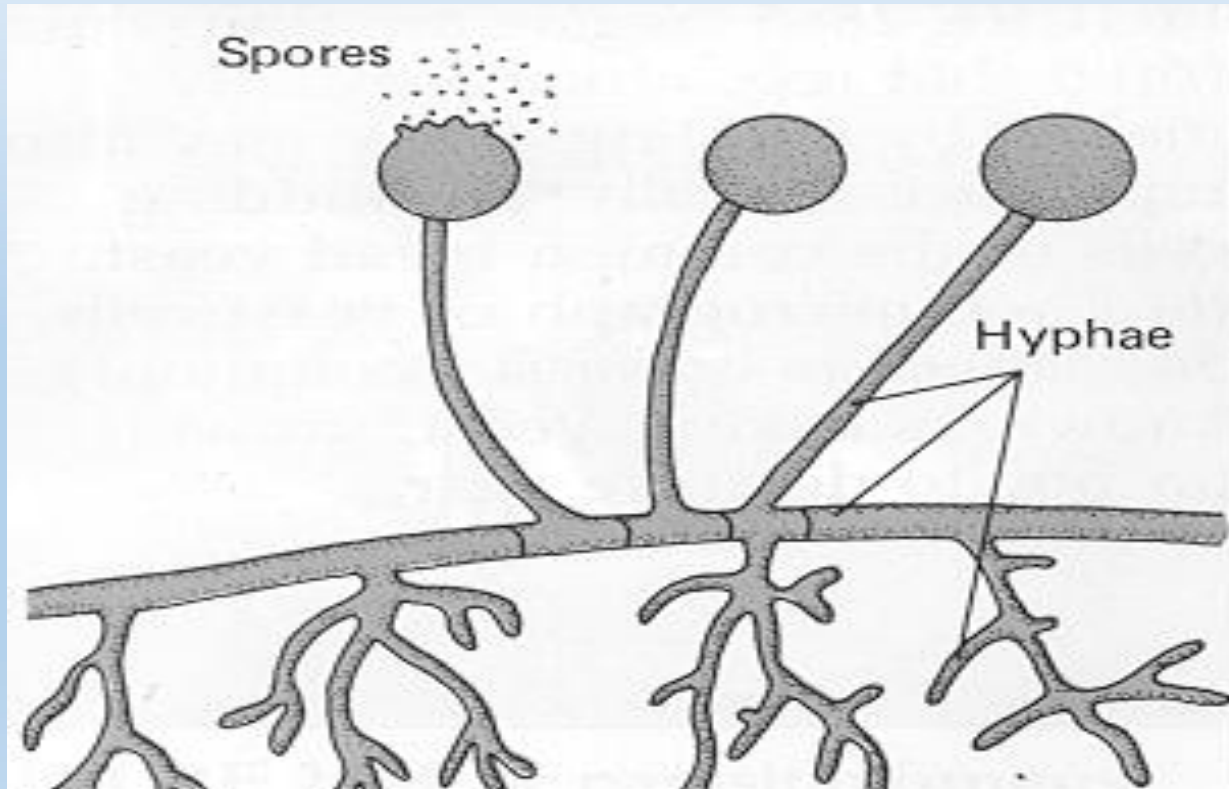
Many mold spores are very aerodynamic and travel on air currents. They indiscriminately land on surfaces. If the surface is warm, moist, and contains food, the spore will begin to grow.

One spore can develop into millions of colony forming units, which in turn, can send millions of spores per day into the air.

The diagrams on the next two slides depict mold propagation and growth.



What Is Mold?

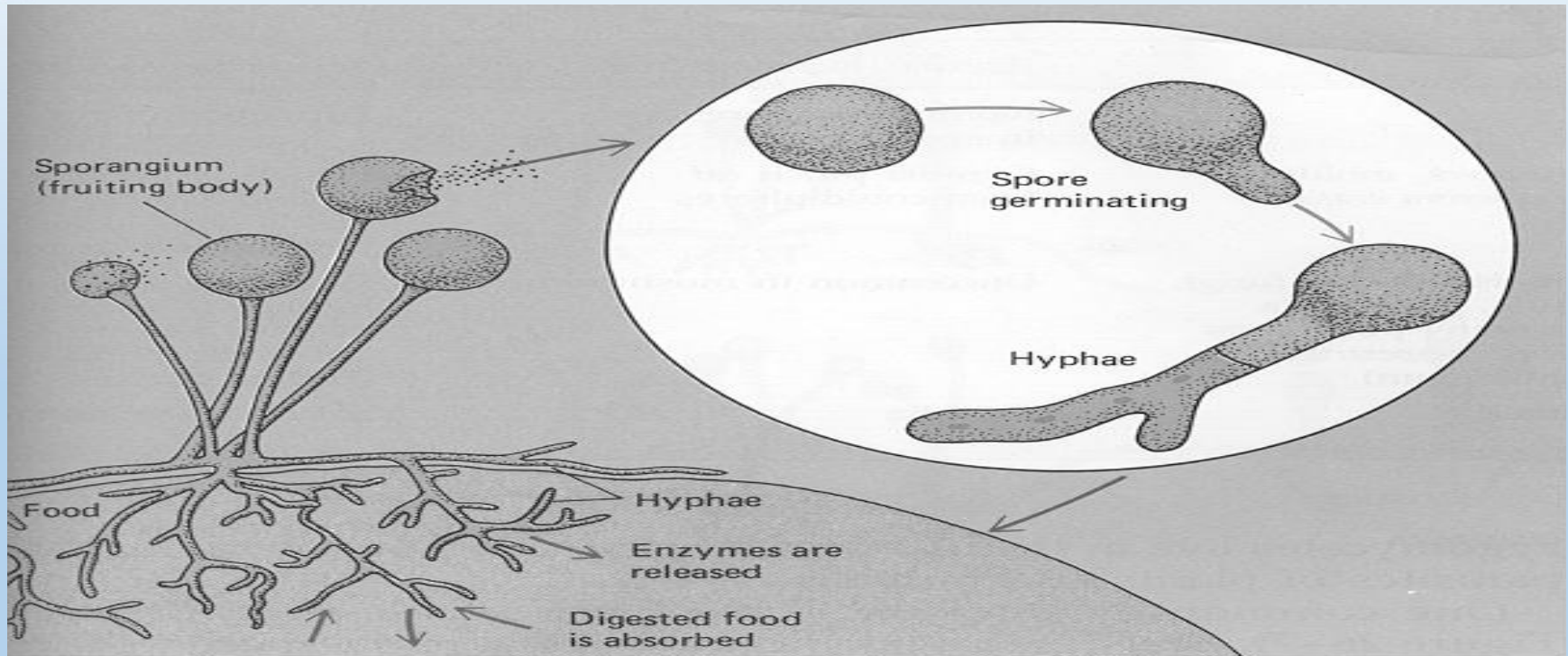


As the spore grows it produces appendages that are similar to fruiting bodies or flowers and Hyphae that are similar to roots of a plant.



What Is Mold?

2.6



The mold excretes enzymes from the Hyphae and digests the host material. It absorbs nutrients through the Hyphae. As the fruiting body develops, in this case a Sporangium, capable of producing millions of spores. The aerodynamic spores travel on air currents. If they land on a warm moist material that is typically their food source, they will begin proliferating. Once incubated by a water source, some molds can proliferate at 60% relative humidity.



What Is Mold?

What does mold need to grow?

- Heat
- Moisture
- Food

What does mold “eat”?

- Organic materials
- Especially things like cellulose



What Is Mold?

2.8

Where can we find cellulose in a house?

- Wall studs
- Sheetrock
- Paper on insulation
- Wallpaper
- Adhesives
- Carpet
- Siding
- Dust and dirt in duct work

Mold likes to eat many of the building materials and furnishing in your home or office.

Environments that are comfortable for people to live in are typically very good for mold to live in as well.



What Is Mold?

The following series of slides are graphic illustrations and pictures to help you recognize conditions that should be considered for disclosure and how those conditions might be disclosed in an appraisal report.

The following conditions either indicate or have the ability to support mold growth.



Water Stained Ceiling Tiles



An appraiser, in the condition of improvements section of an appraisal report, may consider identifying the following:

“I observed grayish to black staining exhibiting the characteristics consistent with past or active water leakage.”



Water Stained Ceiling Tiles

Finished basements are notorious for water stained ceiling tiles. The appraiser might consider making a comment like the following, “I observed brown and gray staining at ceiling tiles in the basement that exhibited the characteristics consistent with past or active water leakage. I did not determine whether or not the ceiling tiles were wet during my site visit.”

“All observations contained herein are based on casual, visual observation of readily accessible areas, typical of real estate appraisal site inspection.”

Feeling the tiles with fingers would not be an appropriate test. The tiles are about 5/8 of an inch thick and the finished surface may have dried while the opposite unfinished portion of the tile may remain damp and have mold growing in abundance. When it comes to environmental conditions don't make assumptions.

Clearly and accurately identify limitations of your observations.



What Is Mold?



When I walked into this room I knew there was a moisture and potentially a mold problem. Heck there was so much moisture in the room there was a rainbow.....Just some levity !



Abundant Mold Growth



As a real estate appraiser and environmental expert, absent testing the surfaces depicted, I would describe them in my report as follows:

“At the interior finish wall surfaces of the subject property I observed gray to black stains and growth exhibiting the characteristics consistent with mold growth. This condition covered most of the wall surface and existed throughout all of the first floor rooms.”

Small Cracks Can Cause Big Problems



Cracks in the foundation on the outside can lead to conditions like the one on the inside of the finished basement (depicted in the photo at right).



Roof Deterioration

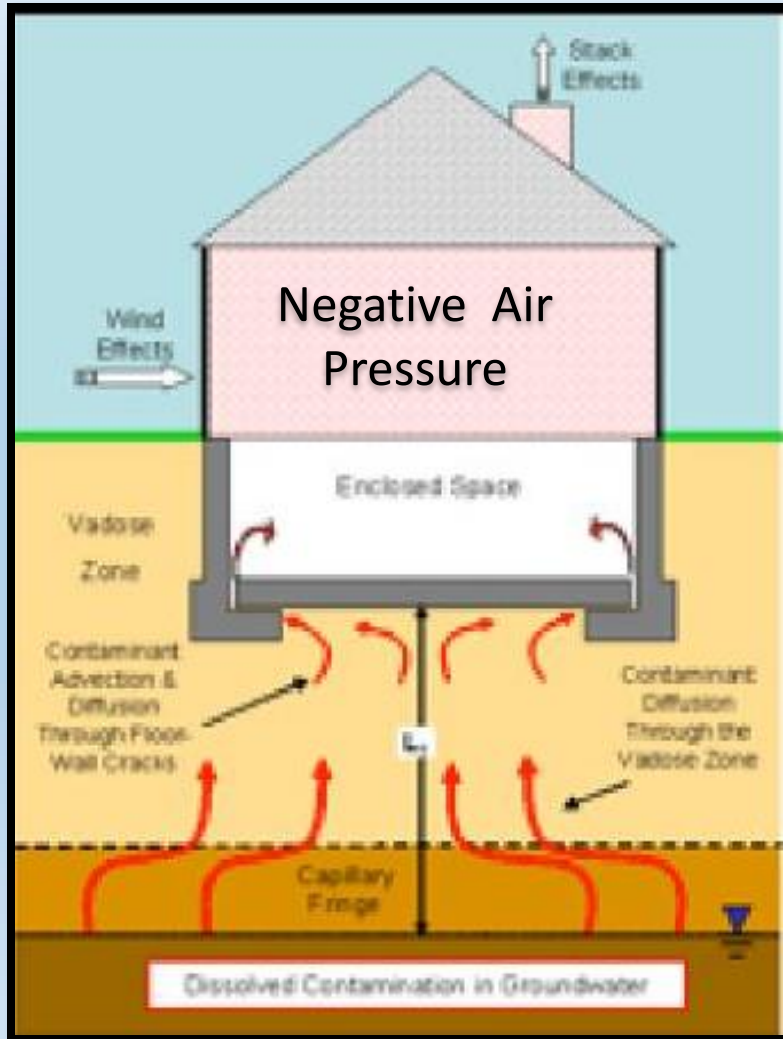


Deteriorated roofing can lead to significant problems inside the subject property.



Negative Air Pressure and Moisture Intrusion

Houses typically exist under negative air pressure; assisting moisture intrusion and in turn mold growth.





Chapter 2

Summary

2.18

Mold is a fungus.

Mold needs heat, moisture, and food for growth.

Any signs of moisture such as water staining should be reported.

Cracks in foundations and deterioration roofs can also lead to mold damage.



CHAPTER 3

Health Effects



Learning Objectives

The Real Estate Professional will be able to:

- Define the three major health effects of mold.
- Identify who is most affected by mold.
- Describe the health effects of mold.



Health Effects

What are the health effects from mold?

Allergen

What is an allergic reaction? Is a response to any antigen entering the body. Allergic responses include swelling, development of rashes, watering of eyes, coughing, sneezing, etc.

Pathogen

Some mold can cause severe infections and even pulmonary hemorrhaging.

Toxin (mycotoxin)

Mycotoxosis, the toxins interfere with the development of healthy cell walls.



Health Effects

Mold can cause allergic reactions, pathogenic illnesses, or toxic responses in the individual exposed to the mold, depending upon the mold and the concentration.

Not everyone will respond the same way to the allergic properties of some molds.

On the other hand the reaction to mycotoxins from individual to individual will be very similar depending upon the concentration or dose and duration of exposure.

The very young and the very old, as well as, individuals that suffer from diseases that suppress the immune system like; lupus, HIV, or have recently had pneumonia, or the flu, will be more susceptible to the adverse health effects associated with mold.



Health Effects

The following is not a criticism of the author of the article, *Is Mold in Your Home a Health Hazard?* by Debbie Lynn Dadd. The author conducted research and used information that I'm sure she deemed reliable. Unfortunately, it was not and the article was electronically delivered via the Internet to hundreds of thousands of real estate professionals around the country.

- Her statement "Relax. Most molds in homes are not a big deal. The most common indoor molds are *Cladosporium*, *Penicillium*, *Aspergillus*, and *Alternaria*, none of which are toxic." is factually incorrect.
- She is correct in her statement "most molds in homes are not a big deal." Subject to the concentration. Also, there are hundreds of species of *Penicillium* and *Aspergillus*, some of which do produce mycotoxins.



Health Effects

The following is a quote from Dr. Edward Sobek director of Assured Bio Laboratories in Oak Ridge Tennessee. Dr. Sobek is an expert in fungi and has worked closely with EPA on the usage of Mold Specific Quantitative Polymerase chain reaction as a methodology for speciation of fungi.

- *He states, "Aspergillus ustus is one of the most widely spread species of Aspergillus. It has been isolated from diverse soils from around the world, salt marshes, estuaries, foods, bat caves and uranium mines. Sporulation of A. ustus is stimulated by light. This species produces several mycotoxins and has been responsible for endocarditis and infections of the lungs and skin. It is possible that infection by A. ustus is nosocomial, but diagnoses of this mycosis are rare."*
- Again this is not a criticism of the author, more an observation of a general pattern of misinformation that has been provided to the public making it difficult to weigh one's responsibilities when it comes to mold contamination.



Health Effects

The following are examples of articles about the health effects of mold.



[Yes, Mold Can Grow Inside A Child's Sippy Cup](#) Healthline – March 9, 2016



[Chronic issues plague Northwood: Mold, Sickness, Lawsuits](#)

Tallahassee.com – March 18, 2016



[How Mold Affects Your Health and Your Home's Value](#) U.S. News & World Report – March 9, 2016



DECEMBER 13-14, 1999 usaweekend.com

USA WEEKEND

- ▶ Best of the Web: Holiday gift bargains, p. 7
- ▶ Vote on grandparents' rights, p.18
- ▶ 10 reasons to eat your spinach, p.20

THE MOLD IN YOUR HOME MAY BE DEADLY

Is your home in danger?
Ron Allison suffered memory loss.
His son, Reese, has asthma and scarred lungs.
The cause: simple exposure to household mold.
How you can protect your family.

USA Weekend December 1999

Ran a story titled *The Mold In Your Home Maybe Deadly* about the health effects mold had on the Allison family.



Newsweek
December 2000

The title: A
Hidden Health
Hazard
Subtitle:
Sneezing and
sniffing? Maybe
the problem isn't
a cold but mold.
It's more
dangerous than
you think.

says Ob-Gyn David Campbell Walters, author of "Just Take It Out!" He says the evolution of the human head has made it too big to fit comfortably into the birth canal. A 1997 study found that 31 percent of female British obstetricians would prefer to deliver their own babies by cesarean.

Vaginal delivery can have serious—and costly—medical consequences. Especially if doctors use mechanical interventions, such as forceps, vacuum extraction or episiotomy, vaginal delivery can increase the risk of lasting problems like gas and urinary incontinence. And long labors—particularly when followed by unplanned C-sections (and lawsuits)—can add thousands to the overall price tag.

Vaginal births after cesareans (VBAC) can be dangerous. Many women with prior cesareans don't want to risk rupturing the uterus during labor, so they often reject the medical establishment's encouragement to undergo a VBAC. "If a woman ruptures her uterus, you have about 17 minutes to have the baby out before you begin to have [brain] damage," says Dr. Roger Freeman, chair of the American College of Obstetricians and Gynecologists task force on cesarean-delivery rates. ACOG said in August of 1999 that a physician should be "immediately" available, not just "readily available," during VBACs. That's not always possible, especially in rural areas. If a clinic isn't equipped to perform VBAC safely, cesarean delivery isn't just a convenience but a practical necessity.

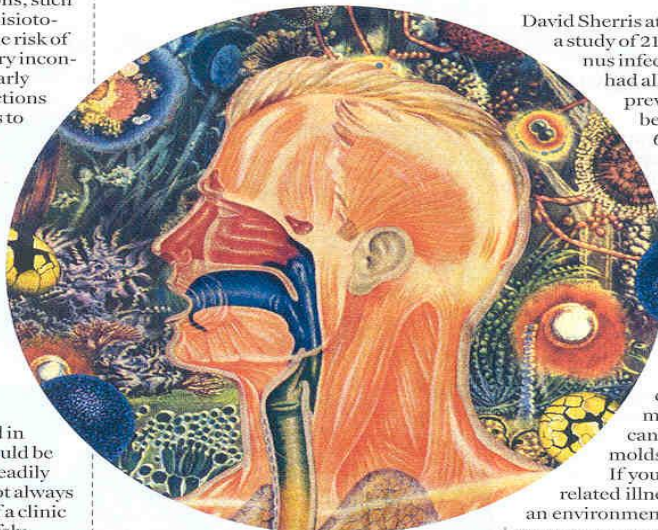
In the end, both sides are half right. Vaginal delivery is the cheaper method of childbirth—and, unlike a cesarean, is not major abdominal surgery. But from the perspective of some Ob-Gyns, restricting a woman's right to choose a form of childbirth makes no more sense than forcing her into the cheaper of two cancer therapies. "In natural childbirth," says Walters, "we don't even mention that there is an alternative. They're not told their bladder is likely to be negatively impacted. They're not told about the possibility of worse sexuality. We are keeping the advantages of cesarean delivery secret."

A cesarean isn't for everyone—and insurance may not cover it if you're doing it just for your own convenience. Talk to your doctor to decide whether a C-section is right for you. Wanting more peace of mind after a previous cesarean or being certain your own doctor is on hand may be reason enough. Just make sure you understand the risks as well as the benefits. ■

YOUR HOME

A Hidden Health Hazard

Sneezing and sniffing? Maybe the problem isn't a cold but mold. It's more dangerous than you think.



David Sherris at the Mayo Clinic performed a study of 210 patients with chronic sinus infections and found that most had allergic fungal sinusitis. "The prevailing medical opinion has been that mold accounted for 6 to 7 percent of all chronic sinusitis," says Sherris. "We found that it was 93 percent—the exact reverse."

More rarely, molds appear to cause problems like Karabell's. These aren't just allergies but reactions to toxins. Certain molds produce poisons in order to kill off competing fungi and bacteria. Risks of toxicity increase with the amount of mold—and flooding and leaks can supply the moisture that molds need to thrive.

If you believe you have a mold-related illness, consult an allergist or an environmental-health specialist. (If you can see or smell mold, that's a good clue.) They will at least be able to confirm the diagnosis and proceed accordingly. The best remedy of all is simply to get rid of the mold. Small blooms on the surface of walls can be removed with a weak solution of chlorine bleach. Wear rubber gloves, open the windows for ventilation and throw out the sponge afterward. A face mask could also be a good idea. "Dead or alive, mold still contains the proteins that provoke allergies," says J. David Miller, a mold specialist at Carleton University in Canada.

If your home has more extensive water damage, remediation may be the only answer. Seek professional help. You need to fix leaks, replace moldy drywall and improve ventilation. Beware of built-in humidifiers in forced-air heating systems. "Molds and slime build up there and never get cleaned out," says Jack Spengler of Harvard. New York City has guidelines on remediation at www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html. California state also has fact sheets at cal-iaq.org/iaqshcct.htm to help you to a healthier home environment. ■

BY ANNE UNDERWOOD

DEENA KARABELL HAD LIVED in her New York City apartment for 15 years, so when she fell ill in 1983, she never suspected that her apartment itself could be to blame. Over the next 15 years she grew progressively weaker. Finally, in the spring of 1998, she lost 30 pounds and went into anaphylactic shock three times. She literally lay dying in her bedroom when a hired nurse noticed a strong odor of mold in the closet. Suddenly things clicked. Karabell's family moved her out immediately. Today—at a safe distance from the mold—she is almost back to normal. "People are amazed at my recovery," she says.

Molds have been an underrecognized health problem, but that is changing. Health-care professionals now know that molds can cause allergies, trigger asthma attacks and increase susceptibility to colds and flu. Anyone with a genetic predisposition can become allergic if exposed repeatedly to high enough levels. Last year Dr.



Business Week June 2000

Ran a story titled *The Dangers of Sick Buildings* about sick buildings that included significant discussions regarding mold.





Chapter 3

Summary

Three major health effects of mold include:

- Allergen
- Pathogen
- Toxin (Mycotoxin)

People most affected by mold contamination:

- Very young
- Very old

People with immune system suppressing diseases

- Lupus
- HIV
- Pneumonia
- Flu



CHAPTER 4

Public Awareness



Learning Objectives

The Real Estate Professional will be able to:

- Define what creates public awareness.
- Define when public awareness about mold started to become popular.
- Identify biased sources.



Public Awareness

What creates public awareness?

Media exposure.

Court cases followed by media exposure, followed by more court cases, and more media exposure are prominent in creating public awareness.

The problem with both venues is that the information is seldom delivered in a balanced manner. Even the news has become sensationalized to a point that it sometimes loses credibility.



Public Awareness

Mold has been known to be a problem in homes for over 4000 years. It was written about in the Old Testament, the book of Leviticus.

However public awareness really began to grow at the beginning of the new millennium (2000). Highly publicized lawsuits, news articles, Internet blogs and releases all helped to fuel the growing concern about mold

The following slides will give you an idea of the broad exposure that erupted during the first part of that decade (2000-2010).



IMPROVED ASTHMA CONTROL AFTER REMEDIATION OF ENVIRONMENTAL *STACHYBOTRYS* CONTAMINATION

Christopher D. Miller, MD; Susan M. Flappan, MS, CIH; Jay M. Portnoy, MD

Case Studies

There have been tens of thousands of articles and case studies in print and on the internet about mold.

INTRODUCTION

Fungal mycotoxins have been implicated in human and animal disease. In this case report, we propose that a non-IgE-mediated mechanism, and probably fungal mycotoxins, were responsible for a worsening of asthma symptoms in a toddler. We also demonstrate the importance of environmental assessment and the effects of environmental remediation.

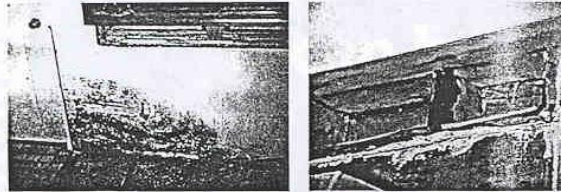


Figure 1. Walls contaminated with a black, slimy fungus later identified as *Stachybotrys*.

CASE REPORT

A 2-year-old white male with a previous history of asthma was brought to our allergy clinic with asthma symptoms that were not well controlled by his current medical therapy of a β_2 -agonist. The patient's symptoms of cough, rhinorrhea, sneezing, ocular irritation, and wheezing first arose when he was 8 months old. His symptoms were perennial and more prevalent in the morning and evening. His family history was negative for atopic disease.

On physical examination, the patient appeared to be an active 2-year-old in no apparent distress. He was in the 20th percentile for height and weight and, according to his parents, his growth and development were normal. Physical examination was unremarkable except for pale nasal mucosa. Respiratory wheezing was documented during prior visits to his primary care physician.

Initial workup included prick skin testing, which yielded negative results for molds, cat, dog, dust, cockroach, and dust mite. The patient had appropriate positive and negative controls. His serum IgE was 27

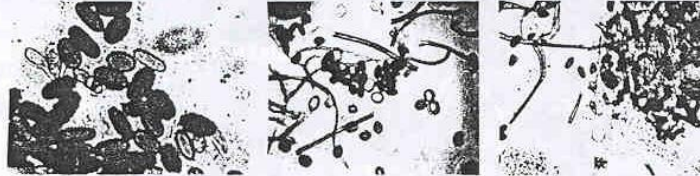


Figure 2. Photomicrographs of *Stachybotrys* isolated from contaminated surface.

IU/mL, with normal being 0 to 99 IU/mL.

Daily anti-inflammatory treatment consisting of fluticasone delivered through a spacer and mask was started. Long- and short-acting β -agonists were also prescribed for worsening or breakthrough symptoms.

Despite these interventions, the patient's symptoms persisted. Because the initial history revealed water leakage in the basement of his home, it was decided to perform a home environmental assessment—some-

thing for which his parents expressed a great deal of enthusiasm.

The patient's home was a 12-year-old, detached, bi-level house in an upper-middle-class suburb. It had a wood-burning fireplace, a central gas forced-air heating system, central air conditioning, and a finished walkout basement with carpeting. Severe water leakage in the basement occurred on two occasions after heavy rainfall. After the first event, the wet carpet

pad was removed and the original carpet was reinstalled.

An inspection of the basement identified two areas of wallboard and wood structure with what appeared to be fungal contamination (Figure 1). Surface samples of these areas later revealed numerous fungal species, including *Stachybotrys*, *Chaetomium*, and *Cladosporium* (Figure 2). Air samples, collected with a volumetric grab sampler, revealed elevated spore counts throughout the house (Table 1). In particular, the spore counts were highest in the patient's bedroom and in the playroom located in the basement. *Stachybotrys* spores were also identified in the basement air samples.

It was therefore assumed that the patient's asthma symptoms might have been related to his exposure to fungi. However, further testing for *Stachybotrys* showed that the patient's IgG response to the organism was less than 3 μ g/mL, with normal being less than 34 μ g/mL. His IgE response to *Stachybotrys* was 279 counts, with normal being less than 3,600.

Nevertheless, his family arranged for environmental remediation in the home. This consisted of removing contaminated building materials, cleaning ductwork, steam-cleaning all carpets, using a vacuum cleaner with a high-efficiency particulate-arresting (HEPA) filter, and installing a pleated furnace filter.

The patient's quality of life, assessed with a tool described by Juniper et al,¹ improved dramatically with home remediation (Figure 3). In addition, he was weaned from his anti-inflammatory medications and has remained asymptomatic, with no further wheezing exacerbations and a significant decrease in rhinitis symptoms. Follow-up air

see CASE STUDY, page 32

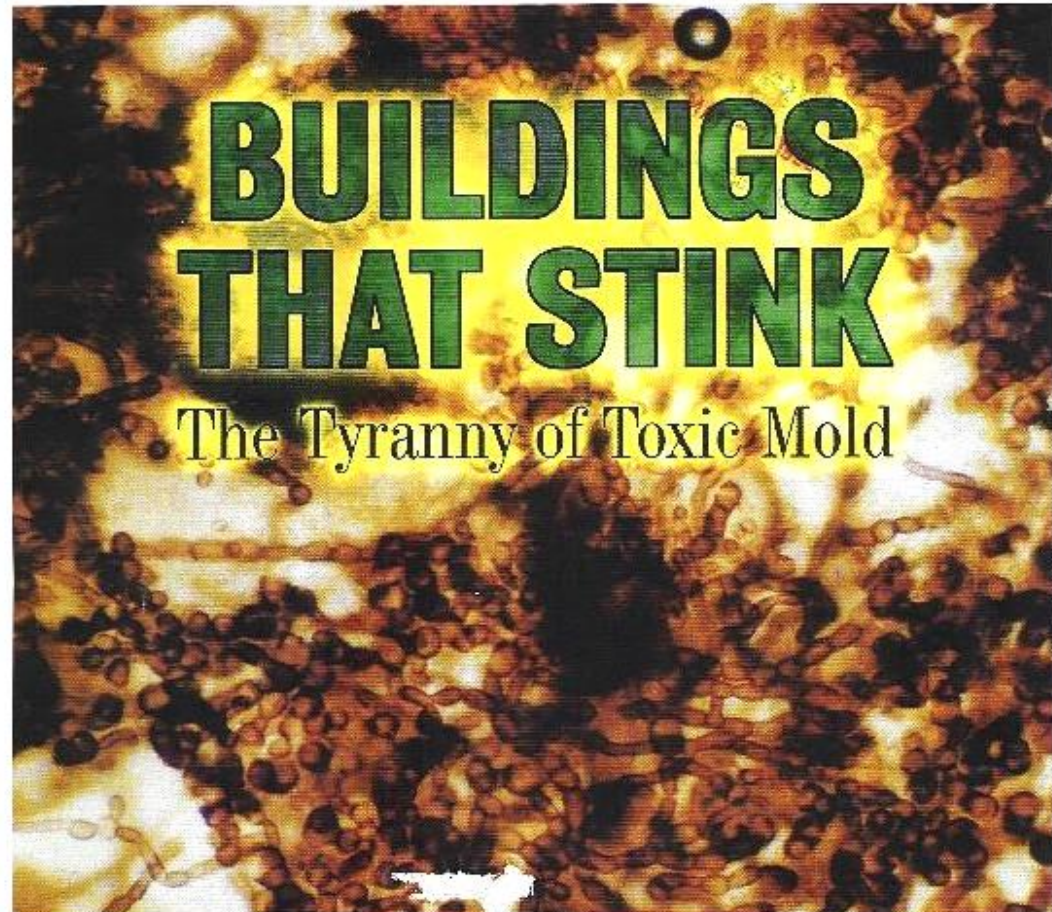
	Sample Dates		
	11/13/97	12/11/97	2/12/98
Kitchen	10,000	800	0
Patient's room	11,200	1,600	100
Basement	12,200*	3,600	100

*Spores identified as *Stachybotrys*.



Magazines

Engineering and building magazines are not exempt from the continually growing public awareness.





Published by The American Society of Home Inspectors®, Inc.

Newsletters

Publications for appraisers, architects, engineers, building inspectors, lawyers, realtors, as well as the general public have been running articles about the significance of mold contamination and their impacts on real estate and public health since the early part of the new millennium.



Bellefontaine, Hirsch, Staron sign on as chapter PR reps as Palczuk pitches ASHI to publications pictured above

by S. Bourseau

The push to promote ASHI through public relations activities is going strong at local and national levels.

The roster of chapter public relations reps continues to grow, with the addition of the following three volunteers:

- ◆ Charles M. Bellefontaine, Northern Illinois Chapter
- ◆ Bill Hirsch, Coastal Connecticut
- ◆ Paul Staron, Arizona

See *Public relations...* page 12

Meet the Year 2000 challenge head-on now!

by Cindy Wittrock, ASHI director of administration

With the new millennium only a few short months away, the importance of becoming Year 2000 compliant is critical to every business entity worldwide. Don't wait...if you

The house-eating fungus

Differences between this and other decay fungi

The water-conducting fungus (*Poria incrassata*) occurs mainly in the southern states, but may occur anywhere in the United States.

When *P. incrassata* attacks a building, spectacular damage often results: once well established it can destroy large areas of flooring and walls every year or two. Fortunately, control is relatively simple. i.e., the permanent elimination of the water supporting its growth.

Although *P. incrassata* is relatively rare, the rapid and extensive damage it can cause makes it desirable to understand the conditions leading to attack, the signs indicating an attack is in progress, and methods of prevention and control of an attack.

Water-conducting fungi differ from most other decay fungi in several respects:

1. Large, tough rhizomorphs (water-conducting strands) are formed which conduct water from a constant source (usually the soil) to dry wood in buildings, wetting it sufficiently to support decay. As decay proceeds, water is conducted to dry wood adjacent to that already colonized. In this manner, as long as the supply of water is available, water-conducting fungi can colonize and decay the wood in an entire house. (Note: The fungus will die if all rhizomorph strands are found and severed.)

Early control recommendations called for the removal of decayed

See *Fungus...* page 8

haven't already taken action, now is the time to get moving!

Preparing for Y2K at ASHI

ASHI headquarters has been preparing for Y2K since the beginning of 1999. The computer system was assessed to identify

any hardware or software applications that were not Y2K compliant. ASHI staff is using the services of long-time computer consultant, Bill Borshell of Falcon Systems, to manage and guide us through this crucial process. Borshell has spent

See *Year 2000...* page 16

Inside... The three faces of EIFS... An insurance primer... Recall of home heating and air condition units... CPSC issues warnings to hurricane victims... See Report from HQ for EBPHI releases new examination... Award nominations: Do it now

Volume 16, Number 9



Complete index on page 5



Chapter 4

Summary

4.8

Lawsuits and media exposure creates public awareness.

In the early 2000s public awareness about mold really started to grow.

Media can be unbalanced sometimes so you must do your own research to get all of the information.



CHAPTER 5

Liability



Learning Objectives

The Real Estate Professional will be able to:

- Identify the similarities between laws and regulations.
- Define what negligence is.
- Identify the problems that sellers should disclose.



Liability

With all of the potential for liability that a real estate appraiser is exposed to every day, it seems miraculous that we as an industry have by and large remained out of the judicial food chain when it comes to environmental disclosure.

The problem will arise the day that we as a group get in the crosshairs of attorneys around America looking for the next asbestos.

Remember, you can be liable for not only what you know what you should have known. An example of this in occurred in Vermont when a real estate sales professional failed to identify high winds that sometime occurred in a valley near Stowe Vermont. The long and the short of the story is that high winds did damage the property subsequent to the sale. Litigation ensued, that included the Atty. Gen.'s office fining real estate sales professional, because should have disclosed what they should have known regarding the wind. Whatever happened to caveat emptor!?! (Gone forever is what happened to caveat emptor.)



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LAWYERS WEEKLY USA

THE NATIONAL NEWSPAPER FOR SMALL-FIRM LAWYERS

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Article of the week from *Lawyers Weekly USA*:

TOXIC MOLD

... the Next Asbestos?

By Sylvia Hsieh

Claims for personal injury and property damage caused by mold growing inside buildings are on the rise, plaintiffs' lawyers and insurance defense attorneys tell *Lawyers Weekly USA*, and some experts predict they will be the next big tort wave.



Liability

My client is not an environmental expert

My client relied on his appraisal



Lawyers are in some ways social samurais. They fight other people's battles. There have been thousands of court cases about mold.

I've personally been involved in several high-profile court cases as an expert.



Claims Are Based Upon...

The presumption is that real estate professionals know or should have known about mold and its potential negative impact on property, and therefore disclosure should have been made.

Misinformation can help fuel the sort of negligence that claims may be based upon.

Misinformation can come from the most trusted of sources. For instance the Internet has tens of thousands of articles about mold. Very few of them have been peer-reviewed by experts. This can influence how information is disseminated and used by the public or professionals interacting with the public. The next slide is an example of just that.



The article at the left is from the October 2000 issue of the Sacramento Business Journal.

OCTOBER 6, 2000



DENNIS MCCOY / SACRAMENTO BUSINESS JOURNAL

Tom Anderson, with son Alan, said Allstate offered \$17,300 to do \$30,000 in home repairs

Mold verdict: \$18 million

KELLY JOHNSON / STAFF WRITER

A federal court jury in Sacramento on Tuesday awarded a 96-year-old Placerville man \$18 million in punitive damages in his bad-faith insurance claims-handling lawsuit against Allstate Insurance Co.

"Allstate could have repaired my house for a little over \$30,000 to start with," Tom Anderson said after the decision.

Allstate, the nation's second-largest home and car insurer, plans to appeal.

Anderson's house was damaged more than 3½ years ago when a water pipe burst and mold took hold throughout the modest structure. He rejected Allstate's offer of \$17,300 to repair the house and sued Allstate in July 1999.

"Thank God it's over," he said Tuesday.

Anderson won't collect any money while the case is on appeal. "Usually it's a two- to three-year process," said Ron Haven of the plaintiff's law firm, Shepard & Haven, in Sacramento. Anderson's lead attorney was Stan Parrish.

son said, he had killed down the mold, but didn't eliminate it. Now the house must be torn back down to the frame.

At trial, an Allstate expert disagreed.

Tom Anderson, who has been living with his son, misses his own home, yard and neighbors.

A year ago Alan Anderson figured that Allstate was waiting for his father to die because the bad-faith lawsuit would have died with him. Now, if Tom Anderson were to die before the appeal is decided, the economic and punitive damages would remain, while the non-economic damages would be lost, Haven said.

"It is a big victory," Alan Anderson said, "for the little guy."



Critics like this \$18 million award winner with only \$30,000 worth of damages prompted insurance companies in 2003 to seek state regulatory approval for limiting their liability regarding mold. In most states and on most residential homeowner insurance policies as well as commercial insurance policies there are either mold exclusions or limits of liability. For that matter most of our real estate professional error and omission policies, or professional liability policies as they are also known, have exclusions for environmental contaminants. These factors make it even more important for real estate professionals to be more vigilant in their disclosure.



Apartment mold claim advances on Building Code theory excerpted from VLW January 21st, 2011 · Judge James R. Spencer, Landlord-Tenant, Toxic mold Sanders v. UDR Inc



A Richmond federal judge says a couple who alleges damage from mold infestation can sue their landlord for negligence per se, on a theory the landlord violated Virginia's Uniform Statewide Building Code.

The Supreme Court of Virginia has not addressed this kind of negligence per se claim based on the state Maintenance Code, said Richmond U.S. District Judge James R. Spencer.

The cases that do apply negligence per se to violations of the Building Code generally, or to its Maintenance Code specifically, "are not between residential landlords and tenants," or "precede the General Assembly's 2008 amendments to Virginia landlord-tenant law that established an ordinary care standard for statutory violations," Spencer wrote in his Jan. 12 opinion in *Sanders v. UDR Inc*.

No precedent "directly answers the post-amendments question of whether a residential tenant may properly claim negligence per se based on a landlord's alleged failure to adhere to provisions of" the Maintenance Code, Spencer said.



UDR argued that allowing the negligence per se claim would make landlords “virtual guarantors of the perpetual pristine condition of leased premises under their control.” But Spencer said the parties still are free to argue the elements of negligence per se, and to debate whether UDR violated the Maintenance Code and whether any such violation was excusable.

The court also denied UDR’s motion to dismiss the tenants’ fraud claims alleging misrepresentations in the maintenance staff’s response to the Sanderses’ complaint and the defendant’s attempts at a remedy.





Calypso

Sickening: Families blame black mold for illnesses at apartment complex

Posted: May 06, 2011 4:14 PM EDT Updated: May 06, 2011 4:36 PM EDT

5.10



Several families in Sheffield Township say that they are getting sick and believe their apartments are to blame.

19 Action News visited Sheffield Estates, where residents claim black mold consuming a vacant unit is spreading into their bodies.

Brandon Robinson, Kassondra Secrist and Corie Igo are all concerned about their children and their own health after discovering the black mold spreading through their building.

The outbreak was so bad that the Lorain County Health Department and Fire Department were called out to the apartments last week.

Resident Brandon Robinson spoke of his concerns to 19 Action News saying "we have infants that live in our house, three of them. They told us it could shut down their respiratory systems it's so bad...we have to get them all checked out by the doctor, I'm waiting on my results now." Robinson also says his family suffers from chest pains, headaches, nausea. "I'm always tired which are all signs of black mold poisoning" says Robinson.

After three days in a hotel, courtesy the American Red Cross the families were back at Sheffield Estates because they have nowhere else to go at this time. Most residents aren't convinced the danger has been completely cleaned up.

19 Action News went looking for answers at the leasing office Friday afternoon, nobody answered the door. In the meantime, residents say they are packing up and ready to get out of harm's way.

Channel 19 Action News Cleveland, Ohio



Claims

COVERING THE BUSINESS OF LOSS

Mold & Mildew: A Creeping Catastrophe

By Everette L. Herndon, Jr. and Chin S. Yang

In February 2000, a Texas grand jury found reason to continue a criminal investigation of child endangerment charges against an insurance company for its handling of a water damage claim. This investigation was prompted by a criminal complaint filed by the policyholder and follows the filing of a \$100 million lawsuit in 1999 against the same insurance company for its handling of the claim. The policyholders say that the insurance company did not act properly or in a timely manner following the water damage claim. The allegation is that the house is now uninhabitable.

The family claims that, following the water damage, and while they were still living in the house during repairs, they were coughing up blood. The husband, the family claims, is now suffering from a cognitive dysfunction, among other injuries.

The problem? Mold. *Stachybotrys chartarum* (a.k.a. atra) to be specific. The mold developed following a water damage loss in 1998. The policyholders allege that neither the insurance company

There are still ways for individuals or businesses to exceed the limitations described in a policy, but there are greater burdens of proof than previously existed.



Chapter 5

Summary

5.12

Negligence is the failure to exercise the care that would be exercised by a reasonable person under the circumstances, in view of the probable danger or injury.

Regulations have the same affect as law, the appraiser will be held accountable as if it were a law passed by legislature.

Water stained walls and ceilings , musty smelling carpets, and other water damage that could have been covered up when selling a house should be disclosed.

A Seller Disclosure Form should be accurate and complete and the appraiser should request one if it is not presented.



CHAPTER 6

Testing Techniques



Learning Objectives

The Real Estate Professional will be able to:

- Identify three different nonviable testing techniques used by mold investigators conducting screenings.
-
- Define the limitations of mold screening.
- Describe the purpose of mold screening.



The Importance of This Chapter

This chapter is really important for real estate professionals. It is designed to assist you in understanding what a qualified mold screening or investigation entails.

In terms of accreditations, in those states where licensing is absent, (in most states mold testing is not licensed) the American Council for Accreditation and Certification (ACAC) is the preeminent accrediting body.

In fact, the state of New Hampshire recently passed a law requiring anyone conducting mold testing, in their state, be accredited by ACAC. When licensing occurred the state of Florida, appropriate ACAC designations were grandfathered.



The Importance of This Chapter

Information contained in this chapter will help you determine whether or not the individual conducting mold testing is providing you with credible results for either sale and disclosure purposes or valuation purposes.

Visit the ACAC.org website to find a qualified mold investigators in your region.



The basis for practices and conclusions rendered by Environmental Consultants are demonstrated throughout this chapter

The demonstrations and methods are based on the ACGIH Conference of Governmental Industrial Hygienists Bioaerosols Assessment and Controls and the IESO (Indoor Environmental Standards Organization) Standards for the collection of environmental samples to be analyzed for mold contamination.

The chapter will demonstrate the use of various testing equipment with supplies and practices.



Sometimes

During the home buying process a buyer will rely on the real estate appraisal and a satisfactory home inspection.

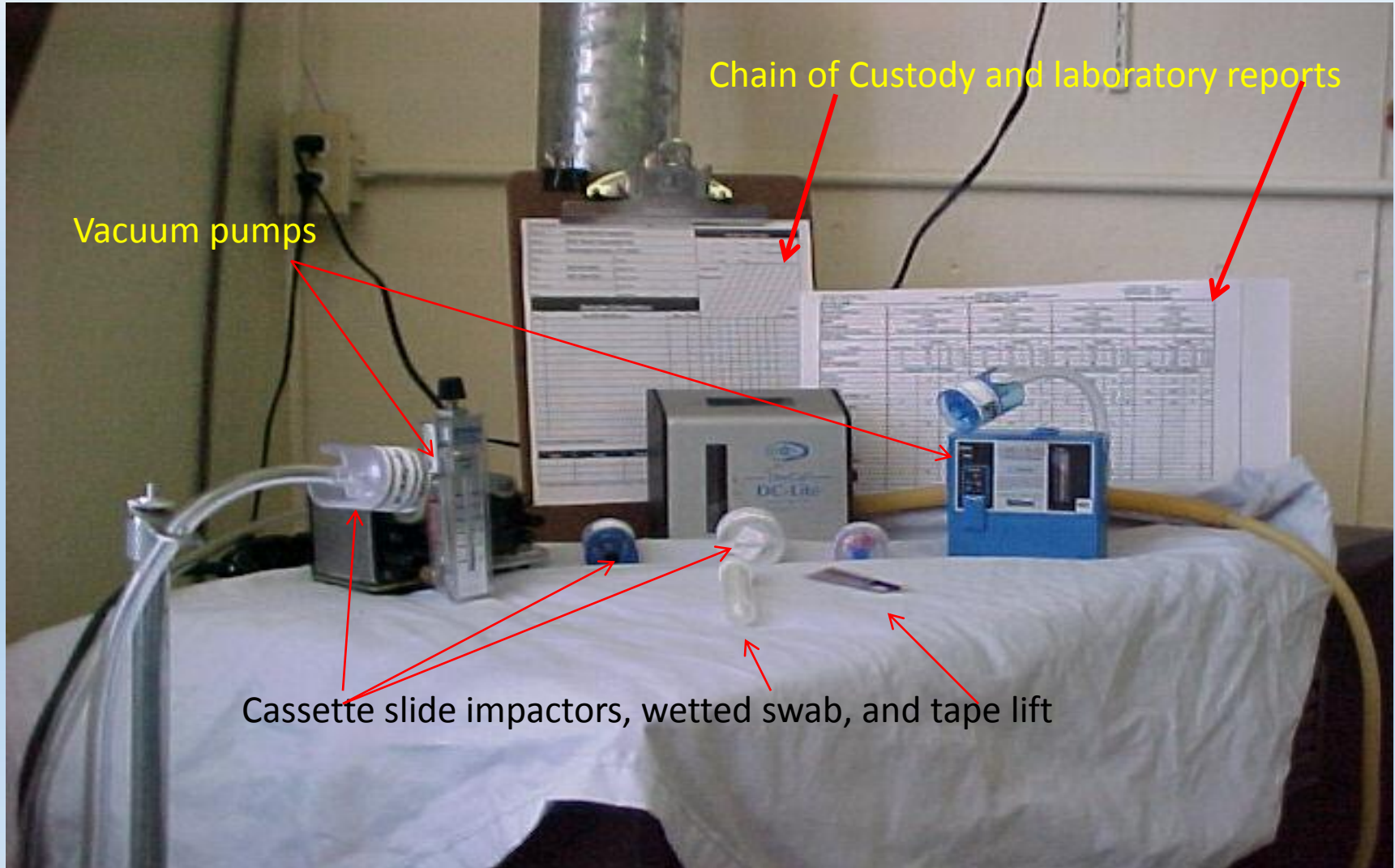
If after living there for a week or a month or so, they start noticing stains or seepage or maybe some mold growing or odors, or their family starts experiencing some health problems that might be associated with mold, an expert in the field of indoor air quality in mold will likely get a call to come in and do some screening. Thus begins the search for mold which will typically be followed by a search for comparable parties.

Mold investigators are indoor air quality experts that may also be referred to as IEP's (Indoor Environmental Professionals).



Testing equipment used by mold assessor includes the following:

6.7





Tape lift sampling

The IEP will begin by holding a piece of tape no longer than 3 inches by the edges, gently apply tape to test surface and slowly remove with steady force. Be careful not to burnish the tape or apply any force to the surface. The tape lift will pick up a lot of cellular debris that can occlude the sample. In other words gum up the works for the technician who is trying to read the slide at the lab. Too much debris on the sample may interfere with the laboratory analysis.



These samples are non viable and do not require refrigeration.



Wetted swabs sampling, the technician will perform the following:



The technician will aseptically remove the swab from the tube, meaning do not touch the darn tip! Use sterile gloves or forceps to hold the bare end of the swab. Prevent it from contacting the sides of the tube. Use the swab by rotating the tip on the sample area.

We recommend a sample area of 25 square centimeters or an area about half the size of a business card. If there is excessive debris on the sample area, the swab may need to be rinsed in the wash solution between surface washes. Seal the swab inside the transport tube.



The advantages of wetted swab sampling 6.10 are as follows:



The method is simple to use and does not require sophisticated equipment or supplies.

Laboratory analysis can rapidly provide qualitative and quantitative analyses of the molds present.

Samples collected and submitted to the laboratory can be analyzed by both direct microscopy and/or culture-based analysis for viable molds.

Large, composite areas can be sampled.



Nonviable air sampling using a vacuum pump and a cassette slide impactor.

6.11

The cassette slide impactor is a sampling medium used in conjunction with a vacuum pump.

It facilitates the capture of mold spores, pollen, and other airborne particles.

A glass or plastic slide rests inside the cassette.

The slide is coated with a sticky substance on the side exposed to the air flow created by the vacuum pump.

As the air and particles flow over the surface of the slide the particles become impacted on the coated surface of the slide.

The slide can then be examined by a technician utilizing a microscope to determine the presence of certain types of mold.

This type of analysis is nonviable and cannot speciate, but provides results in genus and large groups of spores.



Nonviable air sampling using a vacuum pump and a cassette slide impactor.

The sticky surface on the cassette slide impactors captures the spores



The rotameter measures the volume of air that flows across the slide



Two different models of that pump



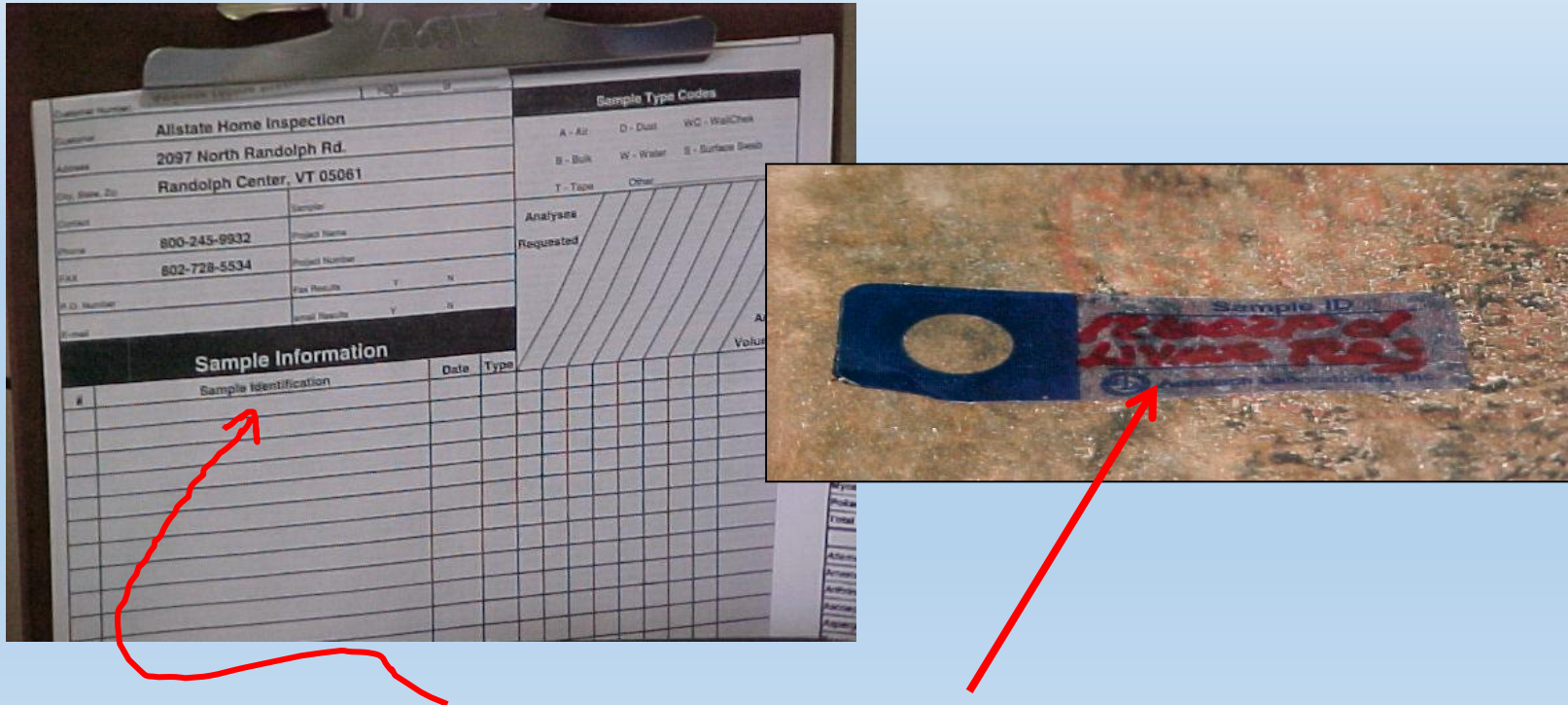
Sample identification and chain of custody relationship:

It's always important that the sample is labeled with a unique descriptor and that the information on the sample matches the information on the chain of custody. A chain of custody is relinquished and accompanies all samples submitted to laboratories.

Using a permanent marker, label the sample with the information relative to the job, like date, area sampled, identification number or code for this sample and job name. Again this should match the data the IEP either have or will log on the chain of custody regarding this sample. Secure the samples and the chain of custody in a shipping container and send them to the laboratory for analysis.



Sample identification and chain of custody relationship:



The unique sample identifier and other information regarding the sample must be consistent and appear on both the sample itself and the chain of custody



Chapter 6 Summary

6.15



The top row contains 3 cassette slide impactors: MICRO5, Air-O-Cell, and Cyclex-d.

They all perform the same function but are produced by different manufacturers.

The bottom row contains two different types of surface sampling mediums: wetted swab and tape lift.



Chapter 6 Summary

The learning extras pdf entitled *Testing Techniques* in the right hand column shares with the appraiser three different nonviable testing techniques used by mold investigators conducting screenings. All the techniques are nonviable, meaning the samples are not cultured. Typically culturing of samples or using MSQPCR (mold specific quantitative polymerase chain reaction) is needed to identify mold species. The nonviable testing techniques provide genus and large groups of spores. The three testing techniques that entry-level mold investigators master are the following: air sampling using cassette slide impactors, surface sampling with wetted swabs, and surface sampling with tape lifts.

The limitation of surface sampling is that it doesn't identify what bio aerosol specifically is floating around in the air and affecting occupants.

Limitations of air sampling using cassette slide impactors are; the samples cannot be cultured and only provide species.



Chapter 6 Summary

The purpose of mold screening is to determine whether or not significant contamination from mold exists in the air or on surfaces. There are no permissible exposure limits established by OSHA or threshold limit values established by ACGIH that define a specific number of spores per cubic meter of air as being safe or unsafe. Although, the World Health Organization frequently considers areas and buildings that have more than 10,000 spores per cubic meter of air, regardless of the type, as being uninhabitable.

Throughout the industry the method employed to determine whether or not mold is significant is done by comparing outdoor samples to indoor samples. The assumption is that the outdoor air is the 'normal' or 'typical' air-quality and contains a 'normal' or 'typical' number of spores per cubic meter of air.



CHAPTER 7

Remediation Procedures



Learning Objectives

The Real Estate Professional will be able to:

- Describe the proper steps of remediation.
- Describe the criteria that make a person qualified to conduct a remediation.
- Describe what S520 is.



The Importance of this Chapter

This chapter is really important for real estate professionals. It is designed to assist you in understanding what typical mold remediation entails.

In terms of accreditations, in those states where licensing is absent, (in most states mold remediation is not licensed) the American Council for Accreditation and Certification (ACAC) is the preeminent accrediting body.



The Importance of this Chapter

When licensing occurred the state of Florida, appropriate ACAC designations were grandfathered.

The standard remediators should comply with is IICRC S520 (IICRC is the acronym for Institute of Inspection, Cleaning and Restoration Certification)

Information contained in this chapter will help you determine whether or not the individual conducting mold remediation properly. This information is important for both sale and disclosure purposes or valuation purposes.

Remediation Procedures



Remediation Techniques

- Eliminate source of moisture
- Component removal (porous materials)
- Cleaning with biocides (non porous materials)
- Air duct cleaning in accordance with NADCA (National Air Duct Cleaners Association) standards. (<http://www.nadca.com>)

Mold remediation is typically conducted in accordance with IICRC S520 (Institute of Inspection, Cleaning and Restoration Certification) mold remediation standard.

The standard is an ANSI standard and widely accepted throughout the industry.

Remediation Procedures

7.6



The following 4 slides are excerpts from S520. They are provided to supply the appraiser with insights regarding the significant cost associated with mold remediation.

For more detailed information visit <http://iicrc.org/>



What is S520?

ANSI/IICRC S520-2008 is a procedural standard and reference guide for the remediation of mold damaged structures and contents. ANSI/IICRC S520 is based on reliable remediation and restoration principles, research and practical experience, and attempts to combine essential academic principles with practical elements of water damage restoration for technicians facing “real-life” mold remediation challenges.

The S520 is written for use by those involved in the mold remediation industry, and is the result of collaboration among microbiologists and other scientists, public health professionals, industrial hygienists, remediation contractors, restoration service companies, cleaning and restoration training schools, trade associations that service the professional restoration industry, allied trade-persons, and others with related professional and practical experience.



The following are excerpts from IICRC S520 (Institute of Inspection, Cleaning and Restoration Certification). It describes the sophistication and care that must be employed when conducting mold remediation. Mold remediation is an expensive process.

Excerpt from Standard for Professional Mold Remediation S520

This excerpt describes the procedures to be followed and the precautions to be taken when mold remediation is performed in residential, institutional, and commercial buildings. It also describes the considerations employed when dealing with personal property or other contents of those structures.

The Standard explains mold remediation techniques, the principals of which may apply to other microbial remediation projects or services. This standard assumes that the determination and correction of the underlying cause of mold contamination is the responsibility of the property owner and not the remediator, although the property owner may contract with the remediator or other professionals to perform these services.



Remediation Procedures – S520 7.9

It is the purpose of this Standard to define criteria and methodology to be used by the remediator for inspecting and investigating abnormal moisture and mold contamination, and for establishing remediation and safety plans and procedures.

Because of the unique circumstances encountered in mold remediation projects, it is impractical to prescribe procedures that apply to every situation. In certain circumstances, deviation from portions of this Standard may be appropriate. Carelessness is never acceptable and common sense and professional judgment are to be exercised in all cases.

Among other things, S520 does not address *Histoplasma capsulatum*, *Cryptococcus neoformans*, hanta virus, animal-derived pathogens or other highly infectious agents, including those from bird and bat droppings. Refer to the Center for Disease Control (CDC) and/or the National Institute for Occupational Safety and Health (NIOSH) for appropriate decontamination procedures for these contaminants. See, for example, *Histoplasmosis, Protecting Workers At Risk*, NIOSH and NCID, U.S. Department of Health and Human Services, 1997.



Cross-contamination: the spread of contaminants from an affected area to an unaffected area.

Engineering controls: the utilization of methods, equipment or containment in such a manner that they limit the exposure of remediation workers and occupants to contaminants and prevent the introduction of contaminants to surrounding uncontaminated areas and contents.

Fungus (plural “fungi”): one of the five kingdoms into which living things are categorized. The other kingdoms are Animal, Plant, Bacteria, and Protista. Fungi have distinct nuclei and include a variety of types, such as molds, mildews, yeast, and mushrooms. Fungi range in size generally from 2 to 20 microns and are ubiquitous in soils, water and air. Unicellular fungi are called yeasts. Fungi formed by long chains of cells are called molds. Fungi are ubiquitous and are found in moist environments.



Remediation Procedures - S520

7.11

HEPA: an acronym for “high efficiency particulate air”, which describes an air filter that removes 99.97% of particles down to 0.3 microns in diameter.

Mold: a common term for filamentous fungi, often seen as a superficial or “wooly” growth of long chains of fungi cells formed on damp organic materials. Toxigenic molds may produce a potentially harmful substance called a mycotoxin. Mold growth can degrade materials and present potential health risks to humans.

Post-remediation evaluation: an inspection performed by a remediator after a remediation project, which may include visual and/or olfactory methodologies to confirm that the remediation process has been completed.



Engineering Controls

To the extent feasible, engineering controls must be used to assure worker safety and health, and to prevent cross-contamination. Engineering controls may include but are not limited to: contamination source control, isolation barriers, pressure differentials, dust suppression methods, HEPA vacuuming and filtration, detailed cleaning, temperature and humidity control, and a sanitary approach.

PPE for workers must be used when appropriate to supplement, but not to replace, engineering controls. It is highly recommended that engineering controls (e.g., contaminant, AFDs) protecting Condition 1 areas not be removed until post-remediation evaluation and/or verification have been completed. It is highly recommended that any alteration of designed engineering controls during a project take into account the potential environmental impact.



Source Control, Isolation Barriers and Containment's

Source control methods may be used alone to address relatively small areas of mold growth, or in combination with other engineering controls to reduce the level of spore release and dust generation.

Local or “mini” containments may be used when moderate levels of mold growth are visible or suspected. Full-scale containments normally are used when significant or extensive mold growth is present or suspected, and cannot be effectively controlled and remediated with source or local containment methods.



Source Control, Isolation Barriers and Containment's

Isolation barriers include containment and critical barriers. Isolation barriers are used to isolate portions of the building, Mechanical system, elevator, elevator shaft or other building openings. It is highly recommended that containment barriers and decontamination chambers be used, as appropriate to separate Condition 1 areas of the building from areas classified as Condition 2 or 3. Additional containment barriers may be necessary when mold conditions are discovered to be more extensive than previously determined. More than one type of containment method may be used simultaneously for control in the same area.

Construction of containment barriers and other engineering controls may result in collateral damage to surfaces. It is recommended that care be taken by remediation workers to avoid damage to surfaces and that responsibility for collateral damage repairs be discussed by appropriate parties and documented before beginning the remediation project.



Pressure Differentials

Pressure differentials are used to manage airflow. The use of pressure differentials is a matter of professional judgement. If pressure differentials are used, it is highly recommended that they be created using HEPA air filtration devices (AFDs) set up as negative or positive air machines. It is recommended that exhaust air from AFDs be vented outdoors when possible. When venting an AFD indoors, it is recommended that a laser particle counter be used to monitor particle output.



Pressure Differentials

If pressure differentials are used, contaminated areas must be negatively pressurized relative to unaffected or clean areas of the building to prevent cross-contamination and it is highly recommended that the integrity of the containment and negative air pressure differentials be maintained throughout the remediation project, including the clean up process. It is recommended that containment performance be checked visually and documented at appropriate intervals. It is highly recommended that work be stopped any time there is a breach in containment or loss of pressurization, and not resumed until the containment has been repaired and the pressure differential re-established. Report any breach in the Integrity of the containment to a supervisor. It is highly recommended that containment barriers be constructed so that if pressure differentials are lost, containment flaps will close to prevent a loss of control.



Mold Remediation Costs:

Are considerably higher than conventional demolition costs.

Need to be carefully considered as a cost to cure item.

Ongoing monitoring costs may also be a consideration.



Mold Can Cause Stigma

7.18

Attend our environmental hazards impact on value seminar and learn court room proven methodologies to calculate the effect stigma has on value.



Chapter 7

Summary

Remediation can range from scrubbing a small area with soap and water to burning down the building.

Depending on the level of mold the home owner, repair man, or mold remediation contractor should conduct appropriate cleaning of the contaminated areas.

Mold removal should always be conducted by a healthy person experienced in mold remediation and adhering to good working practices.

S520 is a procedural standard and reference guide for the remediation of mold damaged structures and contents.



CHAPTER 8

Due Diligence



Learning Objectives

The Real Estate Professional will be able to:

- Identify 5 organizations and governing bodies that dictate environmental due diligence during the appraisal process.
- Describe which organization guides environmental due diligence through standards, guidelines, or regulation.



Society has become litigious

8.2

Coffee anyone?

It wasn't that long ago that an individual was awarded \$2 million by a jury after she spilled hot coffee in her lap at a McDonald's and claimed it was McDonald's fault she sustained injury. Many factors influenced the verdict.

How long will it be before appraisers find themselves in the attorney's crosshairs and part of the judicial food chain?

There's an old saying, "it's better to be lucky than to be good." Members of the appraisal industry as a whole have been lucky when it comes to liability associated with environmental disclosure, but they have not been good.

In an era of Retro Forensic Field Reviews how much longer do you think appraisers can dodge the bullet?



Appraiser Environmental Due Diligence



To meet your appraisal due diligence responsibilities you won't need to dress like this!

You will not need to dress in hazmat gear or obtain a degree in environmental science to meet your appraisal environmental due diligence responsibilities.



Appraisers Environmental Due Diligence

8.4

An appraisers due diligence regarding mold is satisfied by the following:

1. Disclose known conditions that exhibit the characteristics consistent with mold growth or conditions that could support mold amplification at the subject property.
2. Where appropriate, calculate mold's impact on value.
3. Appraisers need not be an environmental expert to have access to data and include it in their reports.
4. Just normal research and observations are required.



Lending Institutions can look to Appraisers E+O for losses: 8.5

Lending institutions have faced sizeable losses over the past several years and can look to an appraiser's errors and omissions insurance in an attempt to recover the losses.

Appraisers might claim they are not environmental experts. However, appraisers do not need to be environmental experts to identify conditions that appear to be mold or may support mold growth.



Unlike the databases available to help Appraisers determine whether or not their subject property is proximate to a contaminated site:

Appraisers must be aware of building related issues such as mold, radon and lead based paint including, understanding the characteristics they exhibit.

It is also important that they understand the conditions under which mold may proliferate.



Main Players:





Main Documents:

- FDIC Guidelines for an Environmental Risk Program
- USPAP (ie. A09 Provision)
- HUD – 4000.1 Handbook
- HUD Valuation Conditions Sheets (formerly required – but still relevant)
- URAR/UAD
- Freddie Mac Single Family Requirements (ie. Section 44.15, 3/1/2008)



FDIC GUIDELINES FOR AN

8.9

ENVIRONMENTAL RISK PROGRAM

Background:

The potential adverse effect of environmental contamination on the value of real property and the potential for liability under various environmental laws have become important factors in evaluating real estate transactions and making loans secured by real estate.

Environmental contamination, and liability associated with environmental contamination, may have a significant adverse effect on the value of real estate collateral, which may in certain circumstances cause an insured institution to abandon its right to the collateral.

FDIC *Source: FDIC Financial Institution Letter (FIL--14--93), dated February 25, 1993]*



To illustrate FDIC's concern consider the following:

There was a state building in Bennington Vermont that cost \$10 million to construct. The building was only occupied for a short period of time around 2007 and has since been torn down because of mold.

There are cases of homes all over America in every price range that have suffered mold contamination so extreme they needed to be demolished.



Independent Reading

Please read [FDIC Guidelines for an Environmental Risk Program](#) in it's entirety located in the Learning Extras to your right.



USPAP



Congress has authorized
The Appraisal Foundation as
the source of Appraisal Standards
and Appraisal Qualifications

THE APPRAISAL FOUNDATION

Every appraiser should have a current copy of USPAP.

A09 provision provides guidance regarding environmental disclosure due diligence.

Please read the A09 provisions located in the Learning Extras to your right



USPAP contains guidance documents known as Advisory Opinions (AO). The preamble to the AO section reads as follows: *"This communication by the Appraisal Standards Board (ASB) does not establish new standards or interpret existing standards. Advisory Opinions are issued to illustrate the applicability of appraisal standards in specific situations and to offer advice from the ASB for the resolution of appraisal issues and problems."*

Guidance regarding appraiser's due diligence for environmental disclosure can be found in the AO9 provision. Listed in the table of contents as "AO-9 The Appraisal of Real Property That May Be Impacted by Environmental Contamination"

This section years ago was $\frac{3}{4}$ of a page and provided little guidance. Today, it is a well conceived easy to understand guidance document that is 5 plus pages. We recommend a complete review of AO9 and the relevant sections of Competency and Ethics. The following are excerpts from AO9.

AO9 sites Standards Rule 1-4: *"In developing a real property appraisal, an appraiser must collect, verify, and analyze all information necessary for credible assignment results."*



It further states:

“Consistent with Standards Rule 1-1(a): in the appraisal of a property as impacted by environmental contamination, an appraiser must *be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce a credible appraisal.*

Accordingly, an appraiser must have the requisite knowledge about appropriate methods, and be able to assemble the required information. An appraiser who lacks knowledge and experience in analyzing the impact of environmental contamination on the value of real property must take the steps necessary to complete the assignment competently, as required by the COMPETENCY RULE.



Continued:

However, an appraiser need not be an expert on the scientific aspects of environmental contamination, and in most situations the appraiser will utilize scientific and other technical data prepared by others, such as environmental engineers.

In these situations, the appraiser should utilize an extraordinary assumption [see Standards Rule 1-2(f)] regarding the information obtained from other experts that is used in the appraisal.

This is especially important in situations where there is conflicting information about such information.”



USPAP

“When the appraiser addresses the diminution in value of a contaminated property and/or its impaired value, the appraiser must recognize that the value of an interest in impacted or contaminated real estate may not be measurable simply by deducting the remediation or compliance cost estimate from the opinion of the value as if unaffected (unimpaired value).”

“*Risk effects* are typically estimated by the appraiser and often represent the most challenging part of the appraisal assignment. These effects are derived from the market’s perception of increased environmental risk and uncertainty.The analysis of the effects of increased environmental risk and uncertainty on property value (environmental stigma) must be based on market data, rather than unsupported opinion or judgment.”



USPAP

Extraordinary Assumption: an assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser' opinions or conclusions.

Comment: Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis.



HUD

United States

Department of Housing and Urban Development

Guidelines for appraisers are embodied in the 4000.1 manual.

Underwriters bear primary responsibility for determining eligibility; however, the appraiser is the on-site representative for the lender and provides preliminary verification that the General Acceptability Criteria standards have been met.



HUD 4000.1 Handbook

8.19

The following considerations are especially relevant to environmental conditions like mold.

The basis of any FHA appraisal are the three S's: Safety, Security and Soundness. Two of the S's relate directly to mold contamination or conditions that could support mold contamination. They are Safety and Soundness.

Fungi, as it relates to soundness can cause structural deterioration and fungi (mold contamination) can create an unhealthy, unsafe, and dangerous environment.



HUD

Until recently (2005) appraisers conducting FHA appraisals were required to answer yes or no to each item on the HUD Valuation Condition sheet a.k.a. VC sheet. Even though the VC sheet is no longer required appraisers are still required to consider the conditions posed as questions of VC – 1 and VC -- 2.

With the retirement of the 4150.2 manual and the adoption of the 4000.1 single family handbook, HUD no longer refers to VC sheets. In some ways this is unfortunate because everything that was originally contained on the VC sheet still must be considered by the appraiser.

This is important for real estate sales professionals when they interact with their colleagues in the appraisal industry around the sale of a property with a FHA guaranteed mortgage.



Secondary Mortgage Market and Due Diligence

8.21

Secondary mortgage market

Surrogate regulators?

Has the secondary mortgage market Freddie Mac, Fannie Mae, etc. become a “surrogate regulator”?

Throughout the rest of this chapter we will explore that question more deeply.



Secondary Mortgage Market Lenders

The Secondary Mortgage Market is the market where mortgage loans and servicing rights are bought and sold between mortgage originators, mortgage aggregators (securitizers) and investors. The secondary mortgage market is extremely large and liquid.

A large percentage of newly originated mortgages are sold by their originators into the secondary market, where they are packaged into mortgage-backed securities and sold to investors such as pension funds, insurance companies and hedge funds.

The secondary mortgage market helps to make credit equally available to all borrowers across geographical locations.



Freddie Mac

The **Federal Home Loan Mortgage Corporation (FHLMC)**, known as **Freddie Mac**;

Surrogate regulator?



About Freddie Mac

Freddie Mac Single Family Seller/Servicer Guide

Freddie Mac was chartered by Congress in 1970 with a public mission to stabilize the nation's residential mortgage markets and expand opportunities for homeownership and affordable rental housing. Their statutory mission is to provide liquidity, stability and affordability to the U.S. housing market.

Freddie Mac participates in the secondary mortgage market by purchasing mortgage loans and mortgage-related securities for investment and by issuing guaranteed mortgage-related securities, principally those we call PCs. The secondary mortgage market consists of institutions engaged in buying and selling mortgages in the form of whole loans (i.e., mortgages that have not been securitized) and mortgage-related securities.

On September 7, 2008, Federal Housing Finance Agency (FHFA) put Fannie Mae and Freddie Mac under the conservatorship of the FHFA (see [Federal takeover of Fannie Mae and Freddie Mac](#)) because of financial losses.



About Freddie Mac

Freddie Mac's three core business lines provide a constant source of mortgage funding for the nation's housing markets – helping to make homeownership and rental housing more affordable for America's families:

1. Single-Family Credit Guarantee Business
2. Multifamily Business
3. Investment Business

Although Freddie Mac does not do business directly with consumers, they do require that lenders that sell loans to them abide by their guidance documentation. **The principle guidance document is called the [Freddie Mac Single Family Seller/Servicer Guide](#)**



Freddie Mac Single Family Requirements 8.26

[Freddie Mac Single Family/Single-Family Seller/Service Guide, Volume 1/Chs. 39-45](#)

Property Eligibility/Chapter 44: Appraisal Reports, Inspection Reports and the Property

Inspection Alternative (PIA)

SECTION 44.15 Property description and analysis (03/01/08)

The appraisal report must be completed in a manner that correctly depicts or describes the neighborhood, site and improvements. The following sections correspond primarily to Form 70, Uniform Residential Appraisal Report, but all of the requirements and guidelines also apply to the other appraisal report forms unless otherwise stated in this section.d. (2)

Impact of Contaminated Sites, Hazardous Substances and other adverse conditions the appraiser MUST consider any known Contaminated Sites or Hazardous Substances that affect the property or the neighborhood in which the property is located. The appraiser MUST also note the presence of Contaminated Sites or Hazardous Substances in the appraisal report, make appropriate adjustments to reflect any impact on market value and comment on the effect they have on the marketability of the subject property.



Fannie Mae

Federal National Mortgage Association

Was founded in 1938 during the Depression as part of the “New Deal”.

Commonly referred to as Fannie Mae

Not to be confused with "Fannie Mae"

A 1959 song by American blues and R&B singer Buster Brown.

It was a # 1 hit on the R&B charts in 1960.





About Fannie Mae

Federal National Mortgage Association aka Fannie Mae is a Government-Sponsored Enterprise (GSE), though it has been a publicly traded company since 1968.

The corporation's purpose is to expand the secondary mortgage market securitizing mortgages in the form of Mortgage-Backed Securities (MBS).

This allows lenders to reinvest their assets into more loans and, in effect, increases the number of lenders in the mortgage market by reducing the reliance on Savings and Loan type Banks.

The idea was, and is, to make more loans available in order that more people can realize the American Dream.



Uniform Residential Appraisal Report

January 1, 1994 Fannie Mae required the use of the then new Uniform Residential Appraisal Report (URAR) form. In the comment section it required appraisers to comment on "adverse environmental conditions (such as, but not limited to, hazardous wastes, toxic substances, etc.) present in the improvements, on the site, or in the immediate vicinity of the subject property."

The most recent revision of the URAR known as the UAD (Uniform Appraisal Datasets) continues to include a requirement to comment on environmental hazards that may impact on the subject property; whether on the subject property or proximate to same.



Uniform Residential Appraisal Report

Uniform Residential Appraisal Report File # _____

The purpose of this summary appraisal report is to provide the lender/client with an accurate, and adequately supported, opinion of the market value of the subject property.

Property Address	City	State	Zip Code
Borrower	Owner of Public Record		County
Legal Description			
Assessor's Parcel #	Tax Year	R.E. Taxes \$	
Neighborhood Name	Map Reference	Census Tract	
Occupant <input type="checkbox"/> Owner <input type="checkbox"/> Tenant <input type="checkbox"/> Vacant <input type="checkbox"/> Special Assessments \$ <input type="checkbox"/> PUD HOA \$ <input type="checkbox"/> per year <input type="checkbox"/> per month			
Property Rights Appraised <input type="checkbox"/> Fee Simple <input type="checkbox"/> Leasehold <input type="checkbox"/> Other (describe)			
Assignment Type <input type="checkbox"/> Purchase Transaction <input type="checkbox"/> Refinance Transaction <input type="checkbox"/> Other (describe)			
Lender/Client Address			
Is the subject property currently offered for sale or has it been offered for sale in the twelve months prior to the effective date of this appraisal? <input type="checkbox"/> Yes <input type="checkbox"/> No			

Dimensions	Area	Shape	View
Specific Zoning Classification		Zoning Description	
Zoning Compliance <input type="checkbox"/> Legal <input type="checkbox"/> Legal Nonconforming (Grandfathered Use) <input type="checkbox"/> No Zoning <input type="checkbox"/> Illegal (describe)			
Is the highest and best use of the subject property as improved (or as proposed per plans and specifications) the present use? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, describe			
Utilities	Public	Other (describe)	Off-site Improvements—Type
Electricity	<input type="checkbox"/>	<input type="checkbox"/>	Street
Gas	<input type="checkbox"/>	<input type="checkbox"/>	Alley
FEMA Special Flood Hazard Area	<input type="checkbox"/> Yes <input type="checkbox"/> No	FEMA Flood Zone	FEMA Map #
Are the utilities and off-site improvements typical for the market area? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, describe			
Are there any adverse site conditions or external factors (easements, encroachments, environmental conditions, land uses, etc.)? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, describe			

General Description	Foundation	Exterior Description	materials/condition	Interior	materials/condition
Units <input type="checkbox"/> One <input type="checkbox"/> One with Accessory Unit	<input type="checkbox"/> Concrete Slab <input type="checkbox"/> Crawl Space	Foundation Walls		Floors	
# of Stories	<input type="checkbox"/> Full Basement <input type="checkbox"/> Partial Basement	Exterior Walls		Walls	
Type <input type="checkbox"/> Det. <input type="checkbox"/> Att. <input type="checkbox"/> S-Det./End Unit	Basement Area	sq. ft.	Roof Surface	Trim/Finish	
<input type="checkbox"/> Existing <input type="checkbox"/> Proposed <input type="checkbox"/> Under Const.	Basement Finish	%	Gutters & Downspouts	Bath Floor	

Appliances Refrigerator Range/Oven Dishwasher Disposal Microwave Washer/Dryer Other (describe)

Finished area ABOVE grade contains: Rooms Bedrooms Bath(s) Square Feet of Gross Living Area Above Grade

Additional features (special energy efficient items, etc.)

Describe the condition of the property (including needed repairs, deterioration, renovations, remodeling, etc.).

Are there any physical deficiencies or adverse conditions that affect the livability, soundness, or structural integrity of the property? Yes No If Yes, describe

Does the property generally conform to the neighborhood (functional utility, style, condition, use, construction, etc.)? Yes No If No, describe



URAR

As of 2011 the site section of the URAR asks the following question:

“Are there any adverse site conditions or external factors (easements, encroachments, and environmental conditions, land uses, etc.)?”

Yes No If Yes, describe

On those blank lines that follow, many appraisers have ambiguous written comments such as “not applicable”, “none noted”, “none apparent”.

We think in most cases these comments are not accurate and the appraiser has not clearly identified the conditions.



Do you wonder if Real Estate Professionals have stuck their heads in the sand when considering environmental contamination?

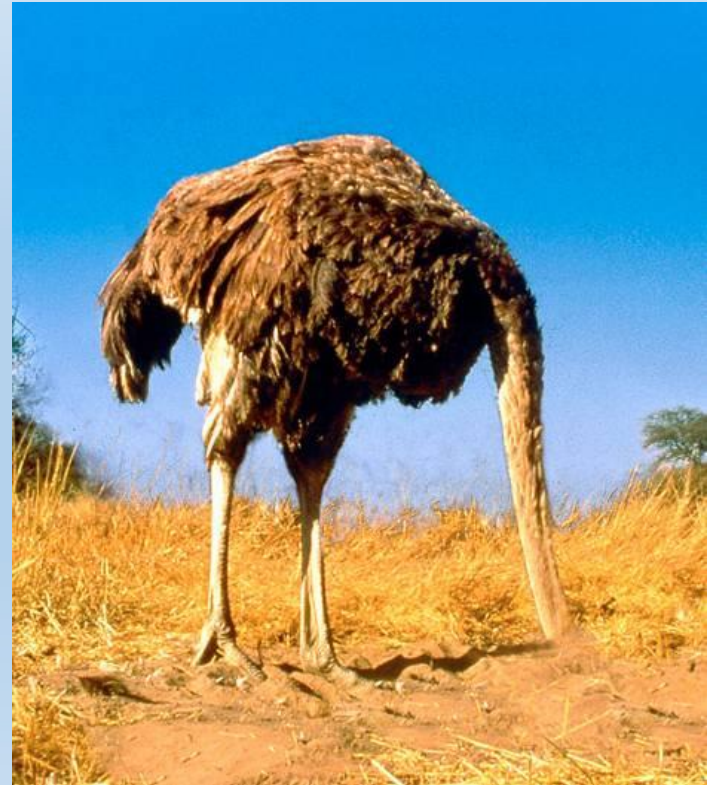




What does CYA mean? (Cover Your Assets)

Burying our heads in the sand is not smart.

It exposes us in just the manner we are trying to avoid.





Calculating Diminution in a Mold Contaminated Property



Please download and read the learning extra entitled ["Calculating Diminution in a Contaminated Property."](#)



Chapter 8

Summary

In 1994 Fannie Mae formally introduced environmental due diligence to the appraisal industry.

The Appraisal Journal in January of 1995 published an article that reviewed then new environmental reporting requirements put in place by Fannie Mae. The article said the section, “clarifies an appraiser's responsibility to report what he or she discovers during the inspection of the property and the normal research”.

The article went on to clearly identify an appraisers' due diligence stating it must be “more than answering “none noted” and relying on a limiting condition.”



Chapter 8

Summary

The 1995 Appraisal Journal article cited USPAP and the G9 provision for guidance; sounding a cautionary note with, “there are tens of thousands of known hazardous sites. Don't be the appraiser who overlooks the site next door, or worse, the subject property.”

Almost two decades have gone by since that article was written. Just a few years ago (2011) Fannie Mae revised its appraisal reporting requirements with the UAD (Uniform Appraisal Datasets).

Not much has changed in reporting environmental conditions; appraisers are still hoping that they have limited their liability with the Limiting Conditions in the URAR regarding not being an environmental expert. Appraisers are still making comments like, “not apparent”, “none obvious”, or “not applicable”.

There is an old sports adage “it's better to be lucky than to be good,” but when it comes to appraisers protecting themselves from liability associated with reporting environmental conditions, as an industry, they have been lucky, not good. In an era where Fannie Mae and lending institutions are doing retro appraisals going back to 2005 and 2006 in an attempt to recover from appraisers and their insurance companies for errors made to value; can we continue to count on our luck?



Chapter 8

Summary

There are several factors and organizations that dictate the terms and conditions under which an appraiser must report environmental contamination.

They include regulations from HUD and states influenced by the ASB (Appraisal Standards Board). There are others I describe as “surrogate regulators”, most prominently, Freddie Mac and Fannie Mae.

These big secondary mortgage market players create guidelines that have the same influence as regulations.

First and foremost we have USPAP and the A09 provision providing guidance to the appraiser regarding due diligence for environmental conditions.



Chapter 8

Summary

8.38

HUD has specific requirements regarding environmental condition described in the 4000.1 manual. They include the requirement to report proximity to landfills or other potentially environmental sensitive sites.

Freddie Mac and Fannie Mae have clear guidelines identifying appraisers responsibility to note in the appraisal report conditions, and also calculate the impact environmental conditions, like mold, may have on the value and marketability of the subject property.

FDIC issues regulations to lending institutions. FDIC has an environmental policy requirement for all lending institutions that they insure. Since real estate appraisers are the eyes and the ears of the lending institution, they, by default, become part of the environmental policy.

The Appraisal Foundation issues updates to the Uniform Standards Of Professional Appraisal Practice every two years. These standards include the A09 provision which identifies responsibility for environmental due diligence.



Chapter 8

Summary

By clearly identifying limitations of your observations and reporting while including summaries of environmental conditions in the community, an appraiser will remove the burden of liability from their shoulders and place it squarely where it belongs; on the shoulders of a lending institution and secondary mortgage market.

“There is (or in some case “is not”) sufficient data in the marketplace to indicate or calculate stigma, reduction, or other diminution in value, unless otherwise stated herein. The appraiser is not an environmental expert, but has relied on information obtained from “Mold assessor report”, attached and included by reference. This appraiser has made extraordinary assumptions regarding the subject property’s value based on data gathered from such environmental reports and recent sales or other relevant data from records of the neighborhood.” In the case of mold typically there will be data in the marketplace available but it will take additional research typically beyond the scope of your initial assignment.

(Note: this comment is intended for informational purposes only; and is not intended to be a legal recommendation. We recommend any additional comments be reviewed with your state real-estate appraisal board and or attorney to ensure compliance with state and local regulations.)

Other factors come into play when the site is actually contaminated with mold; including a determination whether or not the impact on value is solely cost to cure or is this stigma or other diminution because of highest and best use changes.



CHAPTER 9

Case Study Pittsburgh-2000



Learning Objectives

The Real Estate Professional will be able to:

- Describe the conditions that caused the mold in this case study.
- Identify the importance of investigating roof repairs.
- Describe the repercussions of omitting information on an appraisal.



Case Study - Pittsburgh July 2000

9.2

15 years ago in 2000 I was hired as a consultant to determine when and how mold contamination had began in a house just outside of Pittsburgh, Pennsylvania.

Background:

A young couple with two children purchased the home. Upon moving in, everyone in the family developed coughs, itchy eyes, runny nose, and flulike symptoms.

After about a week they noticed that the upper respiratory distress would abate when they went to school or work, but return within a few hours of being home in the evening.



Case Study - Pittsburgh July 2000

9.3

After being in the home for about 10 days they experienced an overflow of a toilet at the lowest level of the house. During the cleanup process a piece of wallpaper in the same bath room became disengaged from the substrate. That is when they noticed..... the entire wall beneath the wallpaper was covered with black mold!

The family hired an environmental consultant to do testing whose advice was to leave all of their personal possessions behind, because they were contaminated, and move out of the contaminated house immediately!

After several years of litigation with their insurance company, they received a settlement of more than double what they paid for the house.

They paid \$103,000 for the house and received a \$280,000 settlement from the insurance company. I was later hired in other litigation



Case Study - Pittsburgh July 2000



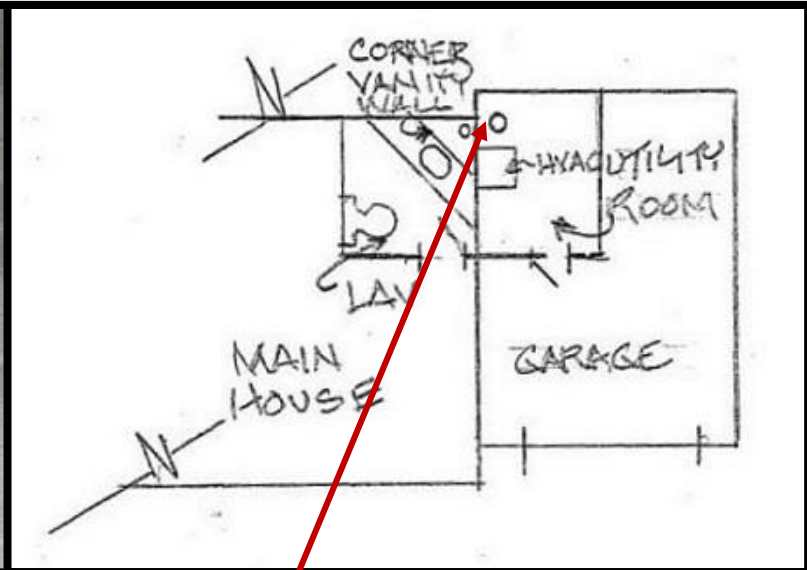
Seven months after they had moved out of the house I was asked to investigate and determine what caused the mold contamination.

(If you see someone, dressed the way I was above, in front of a property you recently appraised, it's probably not a good thing)

Case Study - Pittsburgh July 2000



Roof repair at flashing and chimney

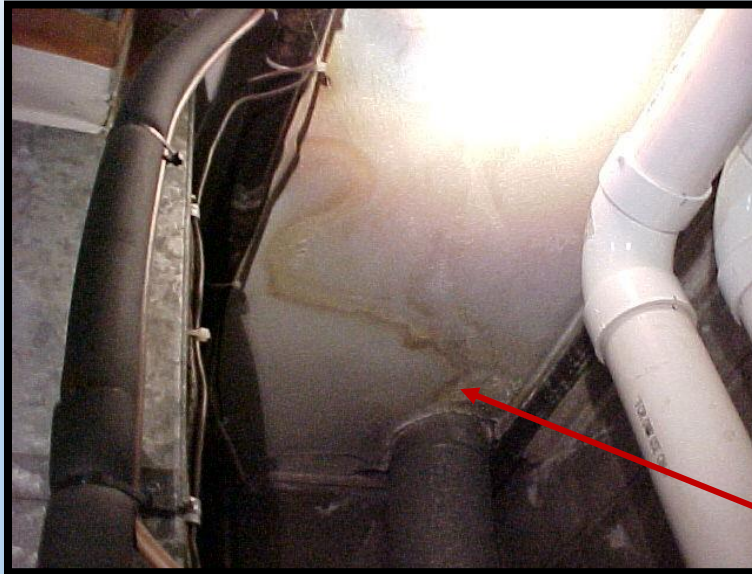


Schematic floor plan of house, utility room & location of photo

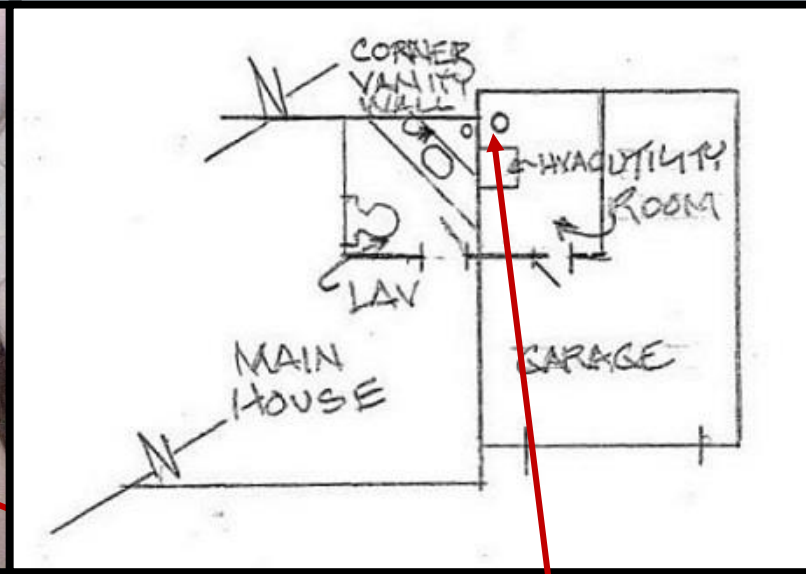
I did a careful investigation of the physical conditions at the subject property. It was very well constructed. The only condition I discovered was a repair around the chimney at the joint between the wall and asphalt roof surface (step flashing), and a missing shingle. From the outside, these conditions didn't appear to be that significant.



Case Study - Pittsburgh July 2000 ^{9.6}



Rusty water stains at the chimney below the roof repair



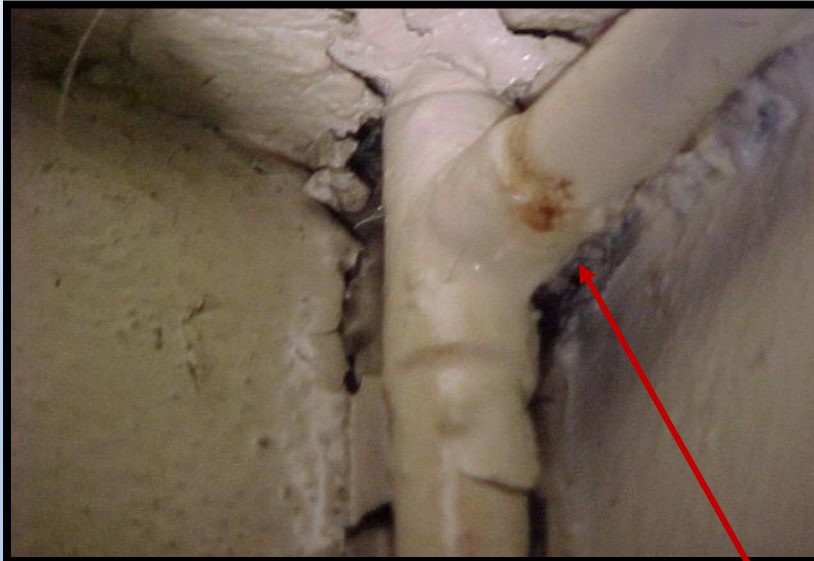
Schematic floor plan of house, utility room & location of photo

Inside the attached garage was a utility room. The utility room housed a furnace and air conditioning unit. The furnace was gas-fired forced warm air. The chimney that I had observed on the outside (with the repair at the junction between the roof and chimney) traveled directly down into the utility room. As you can see in the photo above, the ceiling where the metal chimney traversed had water stains.

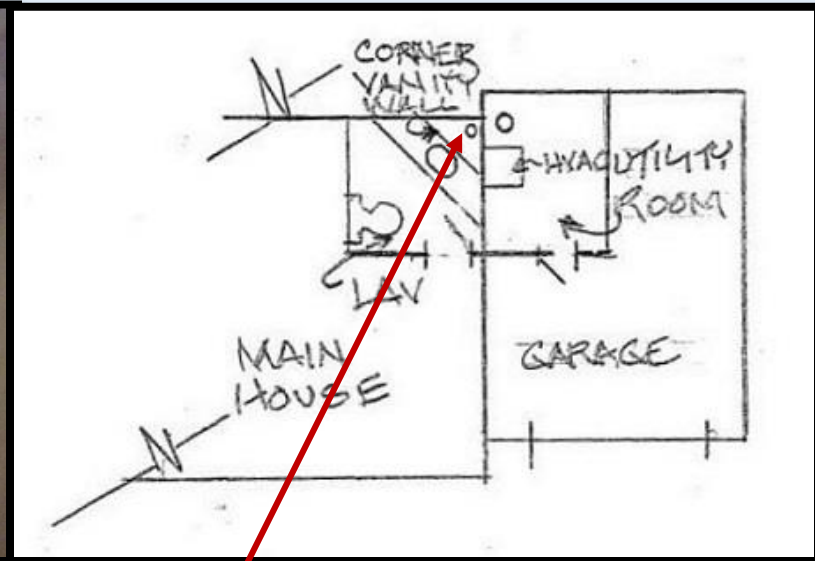
I described in my report as follows, "Brownish to reddish staining at the ceiling exhibiting the characteristics consistent with past or current water leakage."



Case Study - Pittsburgh July 2000 ^{9.7}



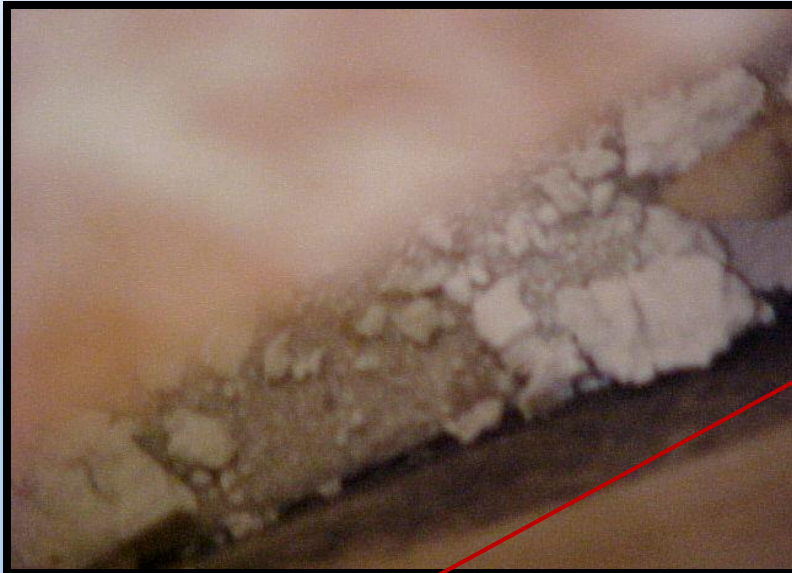
1/2" Copper Pipe located behind the corner vanity wall



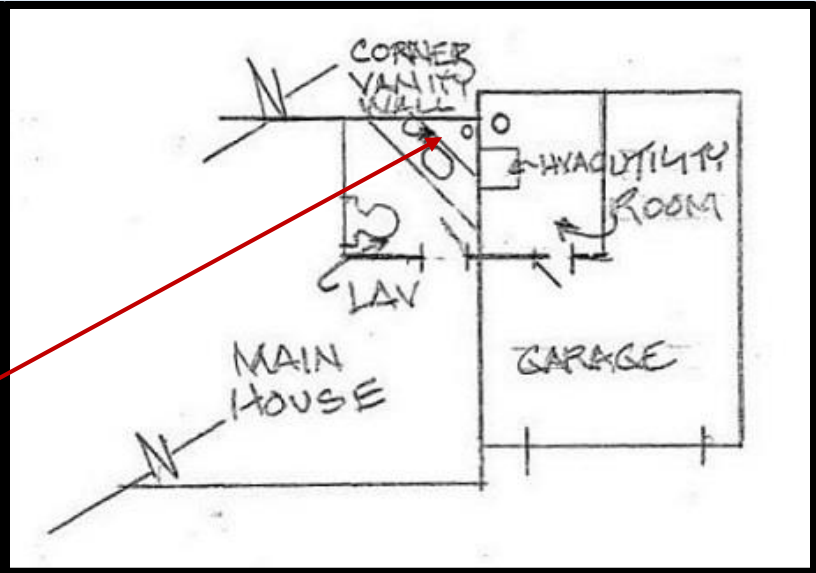
Schematic floor plan of house, utility room & location of photo

Inside the house and adjacent to the utility room of the garage was the bathroom where the toilet overflowed. This is also the area where mold was originally discovered. There were signs on the painted copper water pipe (reddish brown rust staining- copper does not corrode reddish-brown its corrosion is typically green) of water migrating from the ceiling in the adjacent utility room and flowing down behind the corner vanity. The area behind the vanity without removing a portion of the wall.

Case Study - Pittsburgh July 2000



Floor level directly behind the vanity wall.



Schematic floor plan of house, utility room & location of photo

Mold growing on drywall immediately adjacent and behind the vanity.



Case Study - Pittsburgh July 2000^{9.9}

The drywall behind the vanity adjacent to the floor still had black and gray stains exhibiting the characteristics consistent with mold growth.

These conditions existed seven months after the water had been turned off to the subject property and had been supported by the periodic leakage migrating down the chimney, across the ceiling, and down the water pipe to be absorbed by the drywall behind the vanity.

My conclusion was that the mold originated behind the vanity allowing spores to travel throughout the house and propagate on surfaces that had become moist from relative humidity in the air (some mold can proliferate at 60% relative humidity).



Case Study - Pittsburgh July 2000 9.10



The severe mold contamination at this home outside of Pittsburgh was caused by occasional windblown rain. Capillary action allowed leakage to migrate down the chimney, across the utility room ceiling, and then down the painted copper waterline.

The indicators of possible water leakage were the two small repair areas. One repair around the chimney the other at the joint between the step flashing and the brick wall. The missing shingle supplies a clue regarding the potential wind force. The appraiser never mentioned the repairs, missing shingle, or the water stains at the utility room ceiling. He was included in the lawsuit.

The leakage pooled up on the floor. The sheet rock on the back of the wall in front of the vanity absorbed the water from the floor. The sheet rock grew mold, as it almost always will when it becomes wet.



Case Study - Pittsburgh July 2000

What would appear to be a relatively insignificant roof condition caused hundreds of thousands of dollars in litigation, and caused the family to have to abandon their home as well as all their personal possessions.

This is a true case study not a hypothetical condition.

The lending institution allowed the family to sell the property as a short sale; and did not attempt to collect the difference between the \$100,000 mortgage and the \$55,000 that the property sold for in the contaminated state.





Case Study - Pittsburgh July 2000

9.12

What and how might a Real Estate Professional consider disclosing that may have helped the family, lending institution, and reduce their potential liability?

I believe that Sgt. Friday from Dragnet, should've been a Real Estate Professional. "Just the facts mam, just the facts" was his constant refrain.

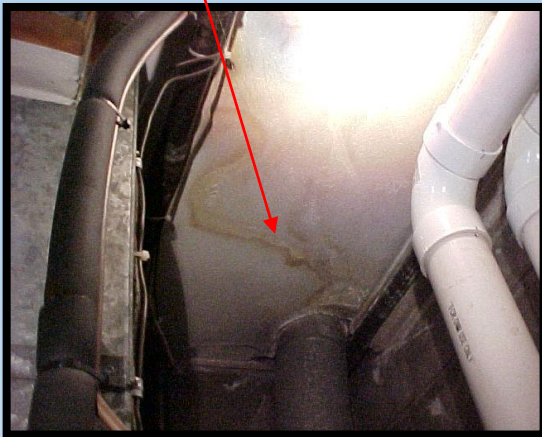




Case Study - Pittsburgh July 2000

9.13

A statement on the report like the following would have allowed the client and users of the report to make an informed decision, “The roof shingle is missing at the garage roof and an asphalt repair was noted at the chimney and roof connection to the brick house wall. Staining was observed at the ceiling adjacent to the metal chimney exhibiting the characteristics consistent with past water leakage. The staining observed was below the area of repair and missing roof shingle at the ceiling of the utility room. The appraiser has no knowledge regarding leakage history or whether or not the leakage has been repaired.”



At that point in time the appraiser should provide the information necessary for the lending institution to order an additional testing date deemed appropriate in order to accept the real estate as collateral for a loan.



Chapter 9

Summary

9.14

In 2000 a Pittsburgh family was forced to evacuate their home due to black mold.

Repairs to the roof caused a leakage that allowed mold to grow.

The appraiser omitted the roof repairs in his report so was therefore brought to court.



CHAPTER 10

Summary



Summary

We know this seminar contains a lot of information.

It is designed to help you effectively evaluate mold testing and remediation as it relates to a sale or value opinion assignment.

In the next three slides we will encapsulate when and how you might disclose information. (Four hours summarized in four slides)



Where to use your eyes and nose

The following list represents areas where you need to be especially vigilant:

- Finished basements are notorious locations for mold growth,
- Below skylights on the walls and ceilings,
- Wall surfaces below windows,
- The floor area next to sliding glass and patio doors, and
- Where chimneys breach floor, ceiling, and roof surfaces.



Observations

10.4

(what you may observe or sense)

The following are things that should represent red flags to Real Estate Professionals:

- Water stains on ceilings, walls, or floors,
- Grayish to green to black fuzzy irregular or discolored patches on walls, ceilings, or floors,
- Musty odors, and
- A reported history of water intrusion or mold contamination.



Disclosure

10.5

You may want to say something like this: (remember Sgt. Friday)

- I observed staining (number of locations) ranging in size from (SQ Inches or Feet) that exhibited the characteristics consistent with active or past water leakage.
- I observed staining (number of locations) ranging in size from (SQ Inches or Feet) that exhibited the characteristics consistent with mold growth or conditions that could support mold growth.
- I smelled musty odors(at the location) that exhibited the characteristics consistent with mold growth or conditions that could support mold growth.



Bibliography

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- ***USPAP*** (Uniform Standards of Professional Appraisal Practice), 2012, Appraisal Foundation.
- ***Standards for the Collection of Environmental Samples***, 2001, IESO (Indoor Environmental Standards Organization)
- ***What You Need to Know about Mold***, 2001, Communicator Magazine, Francis X Finigan
- ***Tools for Schools***, 2005, EPA (US Environmental Protection Agency)