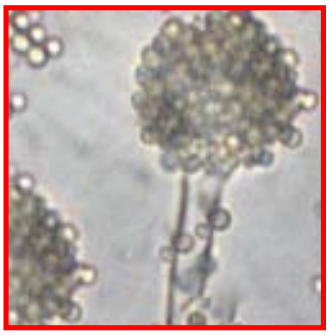
Mold Hazards
Hazards
in
Residential
Real Estate



Includes:

<u>Step-by-Step</u>
<u>Compliance Program</u>

By Chuck Stewart, Ph.D.

Mold Hazards in Residential Real Estate

Typeset and printed in the United States of America.

Published by Stewart Education Services, 3722 Bagley Ave. #19, Los Angeles, CA 90034-4113 • 310-838-6247 (v) • 310-838-6769 (f) • www.StewartEducationServices.com

Distributed by Stewart Education Services.
E-mail: info@StewartEducationServices.com

First edition, first printing: February 2005.

ISNB 0-9764154-4-5

Table of Content

Mold Book Development

Dear Friends,

This book grew out of my frustration in attending courses on mold hazards. I walked away not knowing how to implement the law. The mold courses I attended spent considerable amount of time on the different kinds of molds and not the exact steps needed to comply with the law and protect our residents. What a waste of time and money!

California law mandating mold disclosure and remediation is extremely vague and there are no federal laws at this time. What I have done here is to focus concisely on the needs of owners, managers, and workers to meet legal requirements and develop procedures to provide for resident and worker protection.

This book can be used singularly or as part of a course on mold hazards.

Chuck Stewart, Ph.D.
Founder, Stewart Education Services
February 2005

Materials Used to Create Mold Hazard Course

There are five major sources of materials used to create our Mold Hazard course:

- "Mold in My Home: What Do I Do," by *California Department of Health Services (CDHS),* Indoor Air Quality Info Sheet (1998, Revised July 2001).
- "Guidelines on Assessment and Remediation of Fungi in Indoor Environments," by *New York City Department of Health & Mental Hygiene*, Bureau of Environmental & Occupational Disease Epidemiology (February 1993, revised 2001).
- "Mold Remediation in Schools and Commercial Buildings," by *Environmental Protection Agency (EPA*) (402-K-01-001) (March 2001).

- "Controlling Mold Growth in the Home," by *Kansas State University Agricultural Experiment Station and Cooperative Extension Service* (September 1995).
- And, of course, the California law, the *Toxic Mold Protection Act* SB732 (2002).

No copyrighted materials were used in the creation of this program.

Who Can Use This Course

This book contains legal information and work techniques applicable for owners, property managers, and workers involved with mold prevention and/or remediation in the residential real estate industry.

There have been a number of high-profile lawsuits that have brought mold to the attention of property owners and managers. Residents are slowly becoming aware of mold hazards and have demonstrated their willingness to sue. New York City created suggested guidelines in 1993 and now California has implemented legal requirements concerning mold disclosure and remediation.

Goals

Goals for any training course on mold should provide the following goals:

- Participants will learn of the hazards mold presents to residents and workers.

- Property owners and managers will become aware of the laws affecting their properties as related to mold hazards and be provided the tools to develop an integrated program to assure compliance to all aspects of the law.

- Upon completion of this course, participants will be able to perform mold remediation in a manner that protects residents from mold exposure.

- Mold-safe program managers will learn how to maintain documentation of program compliance.

This book meets these goals and presents the exact steps needed to comply with most laws on mold hazards in residential real estate.

Stewart Education Services

Stewart Education Services is dedicated to bringing *effective* educational programs to the business community. Furthermore, we are dedicated to offering many of our services in multiple languages.

Some of the services we offer include:

Real Estate Environmental Issues

Lead Hazards Concerns

- Lead Hazard for Owner/Manager/Supervisor (English only)
- Lead Hazard for Workers (in English, Spanish, and Chinese— Cantonese and Mandarin)
- Lead Hazard Worker Refresher Course (in English, Spanish, and Chinese—Cantonese and Mandarin)

Other Environmental Concerns

- Mold in the Workplace (in English, Spanish, and Chinese—Cantonese and Mandarin)

On-Site Training

We come to your place of business and instruct you on-site.

- Lead and Mold Hazards
- Databases, Word Processing, Microsoft Applications
- Planning for Diversity
- Diversity Training on Specific Populations (race, gender, sexual orientation)
- Sexual Harassment Training

About the Author: Chuck Stewart, Ph.D., is a recognized authority on effective education pedagogy. He is an award-winning author of many books and articles describing his research into effective teaching methodology and materials. He began his career as a research physicist in the aerospace industry launching vehicles from Vandenberg Air Force Base and developing high temperature materials for the MX missile and the Space Shuttle. Later, he became an educator earning his Ph.D. from the University of Southern California's School of Education, International and Intercultural Education. He has worked in the residential real estate rental industry for more than 12 years and is the author of a law dictionary for ABC-CLIO Publishers besides other books.

Stewart Education Services
3722 Bagley Ave. #19,
Los Angeles, CA 90034-4113
310-838-6247 • 310-838-6769 (f)
info@StewartEducationServices.com
www.StewartEducationServices.com

Chapter 1— Introduction

News Flash

Owners of one Manhattan building were sued **$8 billion** by 140 residents after two residents died from complications attributed to mold exposure and asthma was reported by residents

• A Delaware jury awarded **$780,000** in damages to a resident of an apartment who claimed mold in her bathroom exacerbated her severe asthma.

• Three families in Alameda County, California, settle for **$545,000** against their condo homeowner's association when leaky pipes in the crawl space were not repaired properly and mold grew causing physical illness and mental stress.

• Another California family settled for **$525,000** against their apartment owner and management company when it was shown the owner and management company failed to disclose prior mold complaints and failed to remediate musty odors and mold growth.

These are just some of the very public lawsuits that have brought mold to the attention of residents and lawyers. **WILL YOU BE NEXT?**

Why Mold? Why Now the Concern?

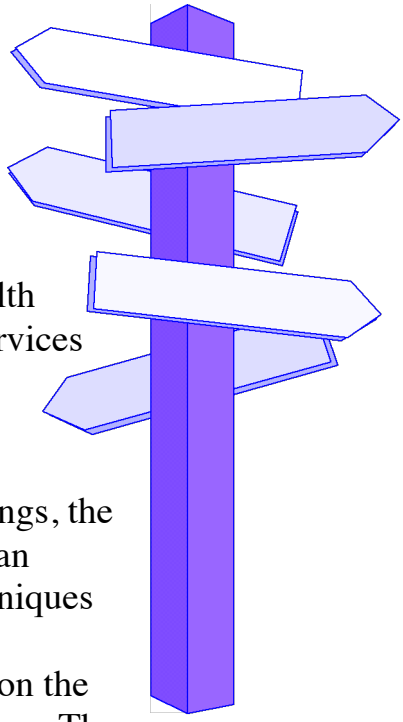
Mold, also known as fungi, and mildew, have always existed in our environment. As we have seen with the increase in awareness and subsequent litigation concerning asbestos and lead hazards, mold hazards are considered to be the next wave of environmental litigation in the residential housing industry.

Problems in mold growth in New York City buildings in the 1990s led to the City of New York Department of Health (DOH), along with the New York City Human Resources Administration (HRA) and the Mt. Sinai

Occupational Health Clinic, to convened a panel of experts on *Stachybotrys atra* in 1993. A set of guidelines were developed and later expanded in 2001 to include all fungi infestations. This influenced the EPA to develop its own guidelines for the identification and remediation of molds in general, not just *Stachybotrys atra* (2001). California Senator Deborah Ortiz introduced legislation (See Appendix: **Toxic Mold Protection Act**) establishing mold hazard identification, disclosure, and remediation standards for residential and commercial real estate, and public buildings. This bill became law January 1, 2002.

This Mold Hazard course is designed to help property owners and management companies to comply with the law and protect resident health. The steps given in this course and manual are designed to compliment the EPA mold remediation guidelines, which is available for download from Stewart Education Services website (www.StewartEducationServices.com). If you encounter extreme mold conditions, we advise you to seek assistance from and attorney and/or mold remediation professional.

Federal and State Regulations on Mold



As of 2002, the guidelines issued by EPA and California law (SB732) do not specify the kinds or quantity of mold that is declared to be hazardous. Likewise, they do not specify the legal responsibilities owners have with respect to specific mold hazards. In absence of specific law, property owners and management companies are encouraged to apply these guidelines to assure resident health and guard against possible litigation. Stewart Education Services Mold Hazard Course and Manual are based upon these guidelines.

EPA Guidelines: Written for schools and commercial settings, the EPA Guidelines focus on prevention and cleanup, rather than assessment and sampling. The prevention and cleanup techniques are basic maintenance procedures that could be applied to residential property. Remediation methodology is based upon the extent of the mold infestation determined by visual inspection. The EPA Guidelines are similar to those used by New York City and Canada.

Toxic Mold Protection Act (California SB732): This Act included two major provisions: (1) Department of Health Services is to develop permissible exposure limits and standards for the assessment and remediation of mold hazards in residential, commercial, and public buildings, and (2) the Department of Consumer Affairs along with DHS to develop standards for the certification of mold testing and remediation specialists by July 1, 2003. The Act required written disclosure of mold contamination to residents in both residential and commercial property. The standards of the Act are to be reviewed and revised every 5 years.

Pending Legislation

There are several California and Federal bill related to mold regulation that are currently pending.

California

Introduced on February 7, 2002, **SB 1763**, directs the insurance department to examine availability and adequacy of commercial and residential property coverage for mold damage.
Status: Pending

Introduced on February 22, 2002, **SB 2684/AB 2684**, intends to limit liability of school districts injury or wrongful death claims arising from toxic mold on school premises.

Federal

The federal bill (HR 5040), known as the **Melina Bill** or The United States **Toxic Mold Safety and Protection Act**, is considered to be landmark legislation. It is the first federal legislation to address indoor mold contamination and empowers the CDC and EPA to conduct research determining health effects of mold. It also directs HUD and the EPA to develop guidelines related to mold investigation and remediation including the certification of inspectors.

Check Stewart Education Services website for updates at:
www.StewartEducationServices.com

Summary

- Many lawsuits have brought public attention to the issue of mold hazards.
- New York City Department of Health & Mental Hygiene, issued its first mold guidelines in 1993.
- EPA issued Mold Guidelines in 2001.
- California adopted the Toxic Mold Protection Act (SB732) in 2001 effective January 1, 2002 and is to be refined by July 2003.
- At this time, neither Federal nor State laws specify the kinds or quantity of mold declared to be hazardous.
- Permissible exposure limits, along with standards for the assessment and remediation of mold hazards in residential, commercial, and public buildings are still to be developed under California law.
- In absence of specific law, it is advisable to follow EPA and New York City guidelines for the assessment, remediation, and prevention of mold.
- There is pending legislation at the State and Federal level that will fully regulate mold assessment and remediation. Expect rulings from EPA, HUD, and Cal/OSHA in the near future.

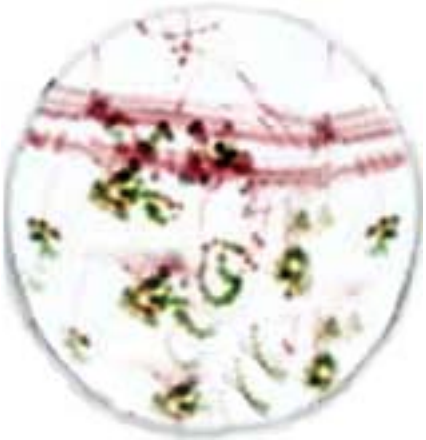
Chapter 2— Mold Descriptions

Molds and Mycotoxins

There are more than 100,000 species of mold (fungi) found in the world and at least 1,000 species of mold common to the United States. Mold is often found in buildings as the result of excessive moisture. The most common species are *Cladosporium*, *Penicillium*, *Aspergillus, Fusarium,* and *Stachybotrys chartarum* (formerly known as *Stachybotrys atra*). (See Appendix: **Common Mold Types**.)

Some molds produce toxic chemicals (toxins referred to as mycotoxins). (See Appendix: **Microbial Toxins**.) Some molds produce several different mycotoxins. Some molds produce different mycotoxins under different environmental conditions. The presence of a particular mold does not directly indicate that a specific mycotoxin is present, only the possibility of its existence. Scientists have discovered that the production of mycotoxins depend on the material the mold is grown, temperature, moisture, and competition from other microorganisms.

Mycotoxins cause a toxic response in humans, animals, and all vertebrates when small quantities are inhaled, eaten, or touched. Even still, not all vertebrates respond the same in every situation. A mycotoxin that produces severe response (or even death) in one person may not induce the same response in another person.



One of the most commonly seen molds is *Stachybotrys chartarum*. It is a greenish-black mold associated with negative health effects in people. It grows on materials with a high cellulose content— such as wood, drywall sheetrock, and ceiling tiles— that are chronically moist or water-damaged. This may be caused by excessive humidity, water leaks, condensation, or flooding. There are many other molds black in appearance that are not *Stachybotrys*. For example, the black mold commonly found between bathroom tiles is not *Stachybotrys*. *Stachybotrys* and other molds can only be

positively identified by specially trained professionals through a microscopic exam.

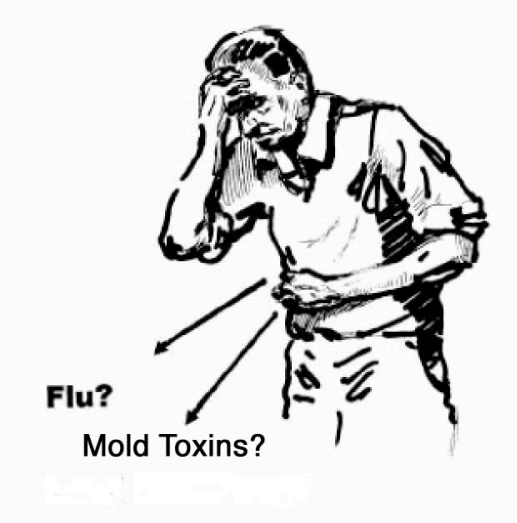
This will become one of the themes of this guideline. Property owners and managers are not trained to identify specific types of molds. The best way to approach mold damage is to eliminate all the conditions required for mold growth instead of trying to identify and remediate for just one kind. Also, no law at this time gives permissible limits for any given type of mold.

Mycotoxin Affect on Health

We live with molds all the time, both inside our homes and businesses and out. Molds are not generally hazardous to healthy individuals. Whether or not someone reacts to mold mycotoxins depends on the person's susceptibility, nature of the mold and its mycotoxins, and the amount of exposure. People with asthma, hay fever, or other allergies are the most affected, as are the very young, very old, or those with suppressed immune systems.

Some of the flu-like symptoms related to mycotoxin exposure include:

- Shortness of breath, hacking cough, wheezing, and other difficulties with breathing. Flare-up of asthmatic symptoms.
- Nose and throat congestion and irritation.
- Eye irritation including watery or runny eyes, light sensitivity, and blurred vision.
- Fever, aches and pains, and arthritic flare-up.
- Skin redness and irritation.
- Headaches, mood changes, and confusion.



Severe reactions to mycotoxins may include death. These are real health concerns not to be lightly dismissed.

A physician should be consulted if you believe that you or your children have symptoms related to mold exposure. Remember that many symptoms associated with mold exposure are similar to symptoms due to other illnesses. It is easy to confuse physical symptoms. Tell your physician about your symptoms, including information on when the symptoms began, how they are manifest, and duration.

Exposure Path

The primary method of exposure is inhalation. When moldy material is damaged or disturbed, spores (seed-like reproductive bodies) are released into the air. People may become exposed by inhaling the spores, directly handling moldy materials, or accidentally ingesting it (such as hand-to-mouth transfer). Large exposures are associated with certain occupations (e.g., agricultural work or mold remediation worker).

Conditions Needed for Mold Growth

Mold (fungi) is a living organism that requires food, heat, and water. Deprive mold any of these three items and it cannot survive. Molds do not require light to grow. Mold can grow on virtually any organic substance (clothing, dust, wood, soil, leaves, drywall)—including hard inorganic surfaces (like tile or counter tops) where there is a layer of organic nutrients (such as soap scum and skin residue found on shower tile, or fat that splatters onto tile while cooking). Molds need a temperature from 40 to 100 degrees Fahrenheit.

Most important, mold is most likely to grow where there is excess moisture, water damage, high humidity (above 70%), or dampness. Repairing water

leaks and other sources of moisture is the primary technique used in mold prevention.

Most molds come from spores entering through open doors and windows. They can pass through window screens. They are very buoyant and are easily dispersed by air movement. If they land on a food source at the right temperature and moisture, they will begin to grow a colony within a few days releasing trillions of new spores. If a mold colony is allowed to grow undisturbed, it will eventually destroy the surface it is located.

Some of the sources of Indoor Moisture include:

- Plumbing leaks
- Roof leaks
- Humidifiers
- Steam from showers and baths, and cooking
- House Plants
- Toilet overflow
- Clothes dryers, stoves and other gas appliances that are not properly vented outside.
- Clothes drying on a line inside an apartment
- Green firewood
- Carpet cleaning
- Wet building materials

Some of the sources of Outdoor Moisture include:

- Rain or snowmelt
- Flooding
- Plant watering and sprinkling
- Bird droppings
- Clogged gutters
- Building design that traps water against the building

Summary

Molds

- 100,000 species of mold worldwide
- 1,000 species of mold in the United States
- Some molds produce mycotoxins.
- *Stachybotrys chartarum* is a common greenish-black mold that creates mycotoxins.
- Many other black molds are often confused to be *Stachybotrys chartarum*.
- Black mold commonly found on bath tile is not *Stachybotrys chartarum*.
- Only microscopic examination can determine the type of mold.

Health Affects

- Molds are generally not hazardous to healthy individuals.
- Reactions to mold mycotoxins depend on a person's susceptibility, nature of the mold and its mycotoxins, and the amount of exposure.
- People with asthma, hay fever, or other allergies are the most affected, as are the very young, very old, or those with suppressed immune systems.
- Symptoms related to mycotoxins exposure include: shortness of breath, hacking cough, wheezing, difficulties with breathing, flare-up of asthmatic symptoms, nose and throat congestion and irritation, eye irritation, watery or runny eyes, light sensitivity, blurred vision, fever, aches and pains, arthritic flare-up, skin redness and irritation, headaches, mood changes, and confusion.

A physician should be consulted when mold is believed to be the cause of health problems.

Exposure Path

- Mostly through inhalation
- Certain occupations (e.g., agricultural work or mold remediation worker).

Growth Conditions

- Molds need food, heat, and water to thrive (not light)
- Food includes any organic substance
- Molds need a temperature from 40 to 100 degree Fahrenheit
- Molds need constant moisture

Sources of Moisture

- Plumbing leaks
- Roof leaks
- Humidifiers
- Steam from showers and baths, and cooking
- House Plants
- Toilet overflow
- Clothes dryers, stoves and other gas appliances that are not properly vented outside.
- Clothes drying on a line inside an apartment
- Green firewood
- Carpet cleaning
- Wet building materials

Chapter 3 — Mold Hazard Program

This chapter blends the assessment and remediation guidelines released by the EPA (*Mold Remediation in Schools and Commercial Buildings*) and New York City Department of Health (*Guidelines on Assessment and Remediation of Fungi in Indoor Environments*) to create a comprehensive program that meets the requirements of California Toxic Mold Act (SB732). The **Mold Hazard Program** presented in this chapter works in tandem with these two government documents. If you have questions, the government documents are available for download at www.StewartEducationServices.com.

Every mold and water damage situation is unique. Although we have made every attempt to be thorough, our program cannot cover every situation. Please consider the Mold Hazard Program as a guide to which you may need to occasionally deviate. In some severe situations, experts may need to be consulted.

Also, the Mold Hazard Program may face revisions as California considers substantial changes to the law, including permissible limits on air borne mold. If substantial changes are made to the Mold Hazard Program, Stewart Education Services will forward the changes to students who have completed our Mold Hazard Course.

The Mold Hazard Program includes the following components:

A. Employee Training and Communication

B. Pre-Leased Units
    - Disclosure
    - Move-in Inspection

C. Leased Units
    - Resident Education
    - Resident Communication
    - Prevention

D. General Mold Prevention, Assessment, and Remediation

E. Synthesis of EPA and NYC Mold Remediation Guidelines

F. Medical Evaluation and Relocation

A. Employee Training and Communication

Employees who supervise and/or conduct work to remediate mold infestations need training and communication on the topic.

Maintenance Employees: Should receive minimum awareness training that includes:

- An introduction to mold biology
- Mold Safe Work Practices specifying clean up procedures, personal protection, and potential health hazards. This training can be conducted by outside experts as part of OSHA requirements for Hazard Communication Standard (29 CFR 1910.1200). It is important that any training employees receive be properly documented and kept on file.
- A review of company specific procedures and policies related to mold maintenance
- Interacting with residents to increase their awareness and address their concerns
- Documentation and notification procedures
- Remediation Procedures: The training will give employees the knowledge necessary to address water intrusion and conduct remediation of mold infected areas of limited size (smaller than 10 sq. ft., small areas of walls, and ceiling tiles). This should be "hands-on" training. For larger areas, additional training (and eventually state certification) will be required.

Managers, Supervisors and Technicians: Besides receiving minimum training, managers, supervisors, and technicians should include:

- Review appropriate cleaning techniques
- Review of HVAC and maintenance schedules

- Safe Work Practices, including use of respirator
- Containment strategies
- The use of biocides and disinfectants
- Legal disposal of hazardous waste

Remember, it is important that employee training and communication be documented and kept on file.

B. Pre-Leased Units

Before a vacant unit is leased, a number of steps must be completed. Any evidence of mold must be remediated as part of the turnover process.

Disclosure/Education: If there is prior evidence of mold damage or if mold remediation was conducted on a particular property, it must be divulged to the prospective tenant or buyer and added to the lease/purchase agreement. Also, leasees are to be given a copy of the Department of Health Safety pamphlet **Mold in My Home** (found in the Appendix in multiple languages). Use the form found in the Appendix: **Lease Addendum—Mold Notification** to meet both disclosure and education requirements.

Move-in Inspection: Just before move-in, a walk through of the unit needs to be made and inspected for mold or conditions leading to mold growth. Use the form found in the Appendix: **Move-In/Move-Out Mold Inspection Checklist**. The checklist should show that there is no evidence of mold or excess moisture upon move-in.

C. Leased Units

For units that are currently leased, the following must be completed.

Resident Education: All residents should be informed about mold hazards. Use the form found in the Appendix: **Resident Mold Notification Letter**. It gives guidelines to help prevent mold growth and refers residents to the Department of Health Safety pamphlet *Mold in My Home* (found in the Appendix in multiple languages). By having residents sign and return the form, you will have documented your efforts to educate residents and hold them responsible for maintaining an environment that prevents mold growth.

Resident Communication: If an inspection of a unit (either initiated by the owner/property management or by complaint by resident) reveals that there is mold or conditions promoting mold growth, the problems must be fixed and the resident made aware of the effort. Conduct an inspection and use the form Appendix: **Letter to Resident to Make Repairs** to inform residents of what you found and the action taken or needed to be taken. Once repairs are complete, the form **Repair Follow Up Letter** (found in Appendix) is given to residents along with **Tips to Prevent Mold, Fungi, and Mildew** (found in Appendix).

Prevention: Residents are an integral part of the prevention of mold. They must cooperate in keeping their unit clean, reduce excess moisture, and inform owners/managers about dripping pipes and other sources of water intrusion. The Education and Communication steps discussed above give residents the knowledge to maintain their units in ways to reduce mold growth and, importantly, places responsibility onto residents for damage they may incur for failing to notify the owner/manager of potential problems.

D. General Mold Prevention, Assessment, and Remediation

Buildings should be routinely inspected for evidence of mold or conditions that lead to mold growth. Use the form found in the Appendix: **Maintenance Mold Inspection/Repair Checklist** to guide you in your inspection effort. Remember, the underlying cause of moisture buildup or excess water accumulation must be corrected, otherwise mold growth will return.

Prevention

The key to preventing mold growth is controlling the source of moisture. The EPA Guidelines give a quick reference chart of these sources. The chart is listed below:

Table—Moisture Prevention

Control Indoor Moisture	**Control Outdoor Moisture**
• Fix plumbing leaks, drips or "sweating" pipes • Limit sources of indoor humidity/dehumidify indoor air	• Maintain roof and gutter downspout system • Direct runoff away from foundation by grading, drain tile,

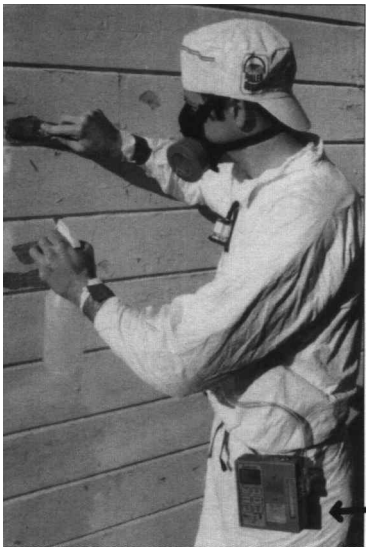
Control Indoor Moisture	Control Outdoor Moisture
• Improve air movement in poorly ventilated areas • Increase fresh air ventilation when outdoor air is not humid • Vent moisture-generating appliances, such as dryers, to the outside • Remove carpeting from bathrooms, kitchens or basements • Remove and replace previously flooded carpets and upholstery • Open closet doors and shower doors to allow air circulation (use a 40 watt bulb to dry and heat air in closets) • Change heating and cooling system filters frequently • Vacuum air return covers or screens regularly • Check air conditioners for mold before each cooling season, have coils cleaned as needed • Ensure that crawl space vents are in working order and unblocked; consider closing vents during summer cooling months.	landscaping, etc. • Use air conditioning and keep building closed during high outdoor humidity • Prevent leakage around windows, doors, flashing, etc. • Waterproof foundation structure • Remove debris from yards, roofs, and gutters

Assessment

Complaints about mold from residents should trigger an assessment of the condition. Issue the resident a 24-hour notice to enter the unit. At this time, there are no federal or state regulations specifying assessment levels for specific molds or permissible levels of spores detected by air monitoring.

Surface Sampling: Although visible mold can be sampled by an environmental consultant and/or analyzed by a laboratory specializing in microbiology, these tests are very expensive—from hundreds to thousands of dollars. Surface sampling is not required to undertake a remediation. If

you choose to conduct sampling, hire professionals with specific mold experience.



Air Monitoring: There is no simple and cheap way to sample the air in a building or apartment to find out what types of mold are present and whether they are airborne. Even if testing is performed, it is difficult to say at what levels health effects would occur—and there are no legal limits specified at this time. Air sampling for fungi should not be part of a routine assessment. Visual inspection is an effective way to identify mold hazards. In addition, air-sampling methods for some fungi are prone to false negative results and therefore cannot be used to definitively rule out contamination. However, air monitoring may be necessary if an individual(s) has been diagnosed with a disease that is or may be associated with a fungal exposure (e.g., pulmonary hemorrhage/hemosiderosis, and aspergillosis).

Visual Inspection: For our purposes, mold is detected by sight or by smell. A visual inspection is the most important initial step in identifying a possible contamination problem. The extent of any water damage and mold growth should be visually assessed. This assessment is important in determining remedial strategies. Ventilation systems should also be visually checked, particularly for damp filters but also for damp conditions elsewhere in the system and overall cleanliness. Ceiling tiles, gypsum wallboard (sheetrock), cardboard, paper, and other cellulosic surfaces should be given careful attention during a visual inspection. The use of equipment such as a boroscope, to view spaces in ductwork or behind walls, or a moisture meter, to detect moisture in building materials, may be helpful in identifying hidden sources of fungal growth and the extent of water damage.

If there is an earthy or musty odor, mold can be assumed. The next step is to locate the source of moisture. The Appendix has the form **Maintenance Mold Inspection/Repair Checklist** that can be used to guide your effort.

The next step is to determine the extent of the problem. A careful visual inspection will help determine the size of the damage area (in square feet),

the source of moisture, and the type of material on which the mold is growing (sheetrock, wood, carpet). Together, these are used to determine the level of remediation required (discussed next).

Remediation
Only after the source of moisture is identified and repaired, is remediation considered. The goal of remediation is to clean or remove (abate) materials contaminated by mold. Work techniques are selected to minimize the emission of mold and spores from the workspace and to protect the health of workers.

The next section lists the remediation effort for different levels of mold hazard as suggested by EPA and the New York City Department of Health. **Caution**: If a particular mold hazard is suspected of being particularly toxic, or is hidden in HVAC systems, or the chances of the mold becoming airborne are high, or if the residents are very sensitive or have asthma, the situation should be considered serious and owners/managers should consider hiring an experienced health and safety professional.

The cost of remediation can vary from a few hundred dollars to millions of dollars depending of the extent of the mold hazard. Widespread mold hazard may compromise the very structural integrity of a building.

E. Synthesis of EPA and NYC Mold Remediation Guidelines

California has not specified guidelines on mold remediation (SB732 states that mode remediation recommendations will be made to the state legislature by July 2003). Most likely the California guidelines will materially follow what EPA and NYC have already developed. Also, if you have a remediation program in place, you are more likely to mitigate potential lawsuits. Thus, below is a synthesis of these guidelines into one model.

General Notes: The size of the area impacted by fungal contamination primarily determines the type of remediation.

Table— Remediation Guidelines

Remediation Guidelines (Synthesis of EPA and NYC)			
Material or Furnishing Affected	**Cleanup Methods**	**Personnel / Personal Protective Equipment**	**Containment**
SMALL EPA-10 sq. ft. or less; NYC- Level 1			
Carpet and backing	1, 3	• Remediation can be conducted by regular building maintenance staff. Minimum Protection— N-95 respirator, glove, and goggles	None required. Dust suppression methods, such as misting (not soaking) while working, are recommended.
Concrete or cinder block	1, 3		
Hard surface, porous flooring (linoleum, ceramic tile, vinyl)	1, 2, 3		
Non-porous, hard surfaces (plastics, metals)	1, 2, 3		
Upholstered furniture and drapes	1, 3		
Wallboard (drywall and gypsum board)	3		
Wood surfaces	1, 2, 3		
HVAC	5		
MEDIUM EPA- 10 to 100 sq. ft. (several wallboard panels); NYC- Level 2 & 3			
Carpet and backing	1, 3, 4	• EPA recommends the use of professional judgement but that regular building maintenance staff may suffice. • NYC recommends the use of personnel trained in handling hazardous materials.	Limited Dust suppression methods, such as misting (not soaking) while working, are recommended.
Concrete or cinder block	1, 3		
Hard surface, porous flooring (linoleum, ceramic tile, vinyl)	1, 2, 3		
Non-porous, hard	1, 2, 3		

surfaces (plastics, metals)	1, 2, 3		
Upholstered furniture and drapes	1, 3, 4	Limited or Full Protection	
Wallboard (drywall and gypsum board)	3, 4		
Wood surfaces	1, 2, 3		
HVAC	5, 6		
LARGE EPA- over 100 sq. ft.; NYC Level 4			
Carpet and backing	1, 3, 4	A health and safety professional with experience performing microbial investigations should be consulted prior to remediation. Personnel trained in the handling of hazardous materials. Full Protection	Full Dust suppression methods, such as misting (not soaking) while working, are recommended.
Concrete or cinder block	1, 3		
Hard surface, porous flooring (linoleum, ceramic tile, vinyl)	1, 2, 3, 4		
Non-porous, hard surfaces (plastics, metals)	1, 2, 3		
Upholstered furniture and drapes	1, 3, 4		
Wallboard (drywall and gypsum board)	3, 4		
Wood surfaces	1, 2, 3, 4		
HVAC	5, 6		

Table Keys

Cleanup Methods Key

#	Method	Comments
1	Wet Vacuum	Some mold spores and fragments may remain, but will not grow if the area is kept dry. Carpets and

		upholstered furniture may be steamed cleaned.
2	Damp-wipe	Use plain water or detergent solution (except wood needs a floor cleaner); scrub as needed.
3	HEPA Vacuum	Material must be completely dry. Dispose content of vacuum in sealed plastic bag.
4	Discard	Items cannot be cleaned and must be discarded in sealed plastic bags. May be disposed in normal waste. HEPA Vacuum area when dry.
5	Biocide (HVAC only)	NYC: A variety of biocides are recommended by HVAC manufacturers for use with HVAC components, such as, cooling coils and condensation pans. HVAC manufacturers should be consulted regarding the products they recommend for use in their systems.
6	Air Monitoring (HVAC only)	NYC recommends air monitoring of HVAC system after remediation of Medium and Large jobs.

All areas should be left dry and visibly free from contamination and debris.

Personal Protective Equipment Key

Minimum	N-95 respirator, gloves, goggles/eye protection
Limited	N-95 respirator or half-face respirator with HEPA filer, gloves, disposable overalls, goggles/eye protection
Full	Full-face respirator with HEPA filter, gloves, disposable full body clothing, head gear, boot covering

For Medium and Large contamination, use professional judgement and consider potential for remediator exposure and size of contaminated area.

Containment Key

The work area should be unoccupied. Vacating people from spaces adjacent to the work area is not necessary but is recommended in the presence of infants (less than 12 months old), persons recovering from recent surgery, immune suppressed people, or people with chronic inflammatory lung diseases (e.g., asthma, hypersensitivity pneumonitis, and severe allergies).

Limited	Use polyethylene sheeting to cover floor around affected area with a slit entry with covering flap; use a HEPA filtered fan to maintain negative pressure; block supply and return HVAC vents within containment area.
Full	Use two layers of fire-retardant polyethylene sheeting with airlock chamber; use a HEPA filtered fan to maintain negative pressure; block supply and return HVAC vents within containment area.

For Medium and Large contamination, use professional judgement and consider potential for remediator/occupant exposure and size of contaminated area.

Biocides

The use of biocides (such as chlorine bleach) for remedial purposes is **not** recommended. The purpose of mold remediation is to remove the mold. Killing the mold does not clean up the contamination. Dead mold is still allergenic and can produce toxic effects. The use of biocides can pose health concerns for people in occupied spaces of the building. Furthermore, the effectiveness of these treatments is unproven and does not address the possible health concerns from the presence of the remaining non-viable mold.

There are conditions where a professional may decide to use a biocide (for example, when immune-suppressed people are exposed to mold). If you decide to use a biocide, ventilate the area. Chlorine bleach with 5.25% sodium hypochrotie is recommended and is very cheap. Follow the directions on the label for making a bleach solution. The solution must be kept on for 10 to 15 minutes to kill the mold. Using bleach straight from the bottle is no more effective than a weaker solution. Biocides kill mold on contact and, as such, it may need to be reapplied over a number of days because of new spores landing on the wet surface germinating to form a new colony. Never mix chlorine bleach solution with cleaning solutions or detergents that contain ammonia otherwise toxic fumes will be produced. Remember, when using fans, take care not to spread the mold and its spores to a wider area.

Finally, some biocides are classified as pesticides in some states and only registered pesticide applicators may apply these products. Fungicides designed for outdoor plants are not to be used for inside applications.

Table—Biocide Selection

Kansas State University Agricultural Experiment Station and Cooperative Extension Service has developed guidelines for the use of biocides. They recommend a Basic Biocide solution consisting of one cup chlorine bleach to one gallon water with one tablespoon trisodium phosphate (TSP) or liquid dishwashing detergent (without ammonia). Allow Basic Biocide solution to set for 10 to 15 minutes. Stronger solutions are no more effective. Use gloves to avoid skin contact with solution. Extreme Caution: Do not mix bleach with cleaners that contain ammonia. Always rinse with clean water and let surfaces dry.

Item	**To Prevent Mold Growth**	**Biocide To Remove Mold**
Painted inside surfaces	Keep surfaces clean and dry. Use a paint that includes a mildewcide. Wallpaper can be hung using wallpaper paste that is mildew resistant.	Scrub surfaces with Basic Biocide solution. Rinse with clean water and allow to dry before repainting or papering.
Bathrooms	Keep surfaces clean and dry. Wipe down shower walls with a towel, squeegee or sponge after showering. Use fans to ventilate to outside (not into attic or crawlspace).	Scrub surfaces with Basic Biocide solution. Use a small brush or toothbrush to clean the grout. Shower curtains may be washed by machine (add chlorine bleach to the wash). Plastic curtains should be hung directly from the hot wash to allow wrinkles to fall out.
Painted exterior surfaces	Remove damp soil or heavy vegetation near walls. Rearrange plants to allow for better air circulation about house foundation. Commercial fungicide products may be used. Follow manufacturer's instructions carefully as these products are toxic to humans and pets.	Scrub with a biocide solution of 1/3 cup detergent (without ammonia), 1 quart chlorine bleach, and 3 quarts water. Repaint using mildew-resistant paint.
Roofs (asphalt shingles and	Clean debris from roof and trim/remove vegetation that may shade the roof.	Apply a biocide solution of three parts chlorine bleach and one part water at the rate of

Item	To Prevent Mold Growth	Biocide To Remove Mold
fiberglass panels)	An annual application of a biocide (one part liquid chlorine bleach and nine parts water at the rate of one gallon per 30 square feet) may be used to prevent mildew. Test roofing materials before application since some products may be damaged by this biocide. Shingles containing zinc granules prevent mildew but are more expensive than other products. The use of commercial fungicide products may be used but are toxic to humans and pets. Use with caution.	one gallon per 30 to 50 square feet. Plastic sheeting should be placed over plants below the leaves to prevent contact with dripping solution. Dilute the solution that reaches the ground by spraying with water. This treatment is appropriate for use with fiberglass roof panels. Test roofing materials with solution to avoid damage to entire roof. Note: Biocide solution makes roofs slippery. Workers are advised to walk on ladders or other support placed on roof.
Decks, wood shingles, and other untreated wood	Sealant should be applied to untreated wood to prevent moisture from penetrating inside. Clean debris from wood structure and trim/remove vegetation to increase direct sunlight.	Scrub surfaces with a biocide solution of 1 quart chlorine bleach, 3 ounces TSP, 1 ounce detergent (without ammonia) and 3 quarts water. Rinse plants that have been splashed with the solution. If stains are evident on the wood, reapply solution with an increased bleach concentration. For stubborn areas, granular chlorine (calcium hypochlorite— used in swimming pools) may be used at the rate of two ounces per gallon of water. Apply with sprayer or brushes and do not

Item	To Prevent Mold Growth	Biocide To Remove Mold
		allow it to stay on the wood surface for more than an hour before rinsing. Repeat application of solution a number of times. Do not apply in direct sunlight.
Clothing and textiles	Dry wet textiles quickly and keep dry. Do not place damp clothing into hamper with out drying first. Soil promotes mold growth, so clean clothes before storing. Do not store clothing in plastic bags for extended periods of time.	Always test clothing and textiles (e.g. carpets) to see if they are safe to use chlorine bleach. Laundry clothing following direction found on the bleach container. The Basic Solution may be used on mold-infested textiles and carpets. However, extensive mold damage may have rotted or weakened the materials to such a stage they are not salvageable and must be discarded. Peroxygen bleaches containing sodiumperborate or potassium monopersulfate may be used on fabrics that cannot tolerate chlorine bleach. Apply the peroxygen bleach at the hottest temperature the fabric will tolerate and leave on for up to 12 hours.
Leathers	There are products available to apply to leather to prevent mildew. Test a small section to color stability. Some wax dressings contain antimildew chemicals. Again, pretest a small section for	Leather dyes are very sensitive to many chemicals. Always test a section before applying mildewcides. A cloth moistened with diluted alcohol (one cup denatured alcohol to once cup water)

Item	To Prevent Mold Growth	Biocide To Remove Mold
	color fastness before application. All leathers should be completely dry before placing into storage	may be used to wipe mold away from leather products. Use thick suds of mild detergents and soaps to remove the remaining mildew. Dry in airy, sunny place.
Books or paper	Keep in cool, dry places where air circulates. Fungicides are available for paper (usually a solution of 3/8 ounce (11 g) salicylanilide with one quart (.95 l) rubbing alcohol). Follow manufacturer's directions.	Dry items (best way is freeze drying, not placing in an oven). Mold and mildew are easier to remove when dried. Don't try to remove slimy or fuzzy mold. For soggy paper, place on paper towels of unprinted newsprint. Use fans to circulate air (but not directly onto item). Place waxed paper between every page of bound books. Insert paper towels inside the covers and intermittently throughout book. Open the book and stand on end. Replace the inserted paper towel with new dry ones, invert the book and stand on end again. Some staining and distortion of the book is to be expected.
Carpets and rugs	Carpets made entirely of man-made fibers are most resistant to mold. If the area where the carpet is to be installed is prone to flooding, glue the carpet directly to the floor since padding easily retains water and becomes moldy first.	Discard pads containing mildew, they are impossible to clean and cheap in cost to replace. Best results are achieved by removing the carpet and using a commercial cleaner. Rinse thoroughly. Detergent left in the carpet will soil the carpet faster.

Item	To Prevent Mold Growth	Biocide To Remove Mold
	How a carpet is cleaned depends on a number of factors— what caused the wetness, amount of water, type and size of the carpet, the kind of flooring, method of installation, and cleaning equipment available. Carpet contaminated by sewer-laden floodwater cannot be cleaned and must be discarded. The longer a carpet stays wet, the more likely it is shrink, change color and grow mildew. Professional carpet cleaners have the proper equipment and should be contacted. Renter's or homeowner's insurance may cover the cost. If you decide to clean the carpet yourself, lay the carpet flat, outside in a clean area such as a concrete driveway. The carpet is placed face down and cleaned using a carpet cleaner. If the carpet cannot be removed, use a vacuum or hot water extraction unit. If there is a pad under the carpet, you will not be able to suck the water up without removing the carpet. Sometimes it is possible to lift the carpet and	Expose the mold growing on the back of the carpet directly to the sun. Apply a weak chlorine solution of 1/4 teaspoon of chlorine bleach to one cup of water. Rinse several times. Allow rugs sufficient time to completely dry. Be aware of rotted or damaged sections. Sometimes the mold damage is so severe; the carpet is not salvageable.

Item	To Prevent Mold Growth	Biocide To Remove Mold
	blow air between the carpet and padding until dry.	
Upholstered furniture and mattresses	Most furniture and mattresses are filled with cellulosic and forma materials that readily absorb water. As such, try to avoid placing these items in damp areas with poor ventilation. It is possible to buy furniture that are made with soil- and moisture repellants and, as such, are bacteriaostats resist soil, stain, and microorganism— including molds.	Take mildew infested furniture outside into direct sunlight. Allow them to dry. Brush off the mildew. A vacuum may be used to speed the drying process. Either professional cleaners may be called or you may do the work yourself. Apply thick, dry soap or detergent suds to the furniture and wipe clean. Avoid getting the stuffing wet. The furniture may be wiped with a solution of one cup denatured or rubbing alcohol to one cup of water. Dry thoroughly. If mold is growing deep in the padding, nothing will eliminate the mold or odor and the item must be discarded.

F. Medical Evaluation and Relocation

Residents who suspect they have health problems due to mold should be encouraged to see a physician trained in occupational and environmental medicine. Infants (less than 12 months old) who experience nose bleeds unrelated to any trauma, have difficulty breathing, and who reside in damp or moldy dwellings, should be medically screened for alveolar hemorrhage. If the pediatrician diagnoses pulmonary hemosiderosis and/or pulmonary hemorrhaging in the infant, the infant should not be returned to the dwelling until remediation is complete and air testing proves safe.

Certain people— infants (less than 12 months old), persons recovering from recent surgery, or people with immune suppression, asthma, hypersensitivity pneumonitis, severe allergies, sinusitis, or other chronic inflammatory lung diseases— should be removed from mold affected areas during remediation. Likewise, persons diagnosed with fungal related diseases should not be returned to the affected areas until remediation and air testing are completed.

Except in cases of widespread fungal contamination that are linked to illnesses throughout a building, a building-wide evacuation is not indicated. A trained occupational/environmental health practitioner should base decisions about medical removals in the occupational setting on the results of a clinical assessment.

Summary

Mold Hazard Program

A. Employee Training and Communication
- Maintenance Employees: Should receive minimum awareness training covering, mold biology, Safe Work Practices, company policies and procedures, documentation, remediation procedures.
- Managers, Supervisors and Technicians: Received minimum training along with review cleaning techniques, HVAC and maintenance schedules, use of respirators, containment strategies, use of biocides and disinfectants, and waste disposal.

Employee training documents to be kept on file.

B. Pre-Leased Units
- Disclosure: Must disclose prior evidence of mold damage or mold remediation before property sale or lease. Must give (1) DHS pamphlet and (2) attach a rider to the lease. See Appendix: **DHS Mold in My Home;** and **Lease Addendum (Sample).**
- Move-in Inspection: A walk through just before move-in documents condition of unit.

C. Leased Units
- Resident Education: All residents should be informed about mold hazards. Use Appendix: **Resident Mold Notification Letter** with the **DHS Mold in My Home** attachment.
- Resident Communication: Mold hazards must be reported to residents when repairs are made. Use Appendix: **Letter to Resident to Make Repairs**. After repairs are made, give residents (two forms from Appendix) **Repair Follow Up Letter** along with **Tips to Prevent Mold, Fungi, and Mildew.**
- Prevention: Prevention information is documented during the disclosure portion of pre-lease and when repairs are made.

D. General Mold Prevention, Assessment, and Remediation
- Prevention is achieved by keeping units clean and free of excess moisture. (See *Table-Moisture Prevention*.)
- Assessment:

    - Resident complaints of mold or water damage should be responded to within 24 hours.
    - Air Monitoring and Surface Sampling are not required.
    - Mold detected by sight and smell. Be certain to look for hidden growth behind wallpaper, under vinyl flooring, etc.
    - Use the form **Maintenance Mold Inspection/Repair Checklist** to guide your effort (see Appendix).
- Remediation
    - First repair the source of moisture.
    - Use work techniques that minimize the emission of mold and spores.
    - Be aware that a professional may need to be consulted for difficult or large mold hazards.

E. Synthesis of EPA and NYC Mold Remediation Guidelines

- Remediation guidelines have been published by the New York City Department of Health and EPA and are combined into one model (See *Table-Remediation Guidelines*).
- Biocides
- The use of Biocides for remedial purposes is not recommended.
- If Biocides are used, see *Table—Biocide Selection* for guidelines.

F. Medical Evaluation and Relocation

- Residents with health problems due to mold should see a physician trained in occupational and environmental medicine.
- Infants, those with suppressed immune systems or asthma, and other are most susceptible to mold hazards.
- Evacuation is not warranted unless mold is widespread throughout a building.

Chapter 4 —Step-by-Step Compliance Plan

This Step-by-Step Compliance Plan will help you protect the health of your residents, document your efforts to prevent and remediate mold infestations, and, thus, reduce your exposure to possible litigation.

Each item marked with an → requires a response.

Program Manager

Owners and management companies need to designate someone to oversee the Mold Hazard Program. The Program Manager should be given sufficient authority and resources to do the job effectively. The manager should be familiar with the company's existing policies and procedures, particularly those related to health and safety. The Program Manager should be knowledgeable on (1) Injury and Illness Prevention Program (IIPP), (2) Hazard Communication Program, and (3) Medical Surveillance Program. The role of the program manager is to design, implement, and document the Mold Hazard Program. (These are explained in detail in Stewart Education Services *Lead Hazard in Residential Real Estate* course.)

At this time, the State of California does not require certification for workers or supervisors responsible for mold safety. This may change after July 2003. It is anticipated that eventually mold certification requirements similar to those that exist for lead safety will be implemented.

Elements of a Mold Hazard Program

Mold should be dealt with the same way as any other health and safety problem: identify, evaluate and control the hazard, assess the work, and document what was done.

Three major areas of a Mold Hazard Program:

General Programs— Establish all programs that apply to every job and must be in place before work begins:

- Injury and Illness Prevention Program (IIPP) [including a Medical Surveillance Program]
- Workers Training and Certification

- Hazard Communication Program
- Compliance Plan

Sales/Rental

- Sale/Rental Disclosure

Work Programs— Procedures required to assure specific jobs comply with the law—

- Identify Mold Hazards
- Determine Job Size
- Personnel Qualifications and Training
- Resident Notification
- Work Materials and Equipment/Tools
- Employee Protections
- Work Practices
- Personal Clean Up
- Waste Management
- Assess the Quality
- Quality Assurance
- Document and Evaluate the Program
- Outside Contractor Qualifications

General Programs

Illness and Injury Prevention Program (IIPP)

An IIPP must be established to cover all employees, including those who are potentially exposed to mold.

→ Has an IIPP been set-up? Yes ☐ No ☐
→ If yes, attach a copy of the program.

In conjunction with the IIPP, a Medical Surveillance Program may need to be established.

→ Have you established a Medical Surveillance Program? Yes ☐ No ☐

Worker Training and Certification

All workers should be trained. There are no certification requirements for mold at this time, although it is recommended for "Large Size" Jobs.

"SMALL & MEDIUM SIZE" Jobs (EPA 10 sq. ft. or less; NYC-Level 1; EPA 10-100 sq. ft. (several wallboard panels); NYC Level 2 & 3)

→ Have all employees who perform mold maintenance on residential property received basic awareness training? Yes ☐ No ☐

→ If yes, attach copies of the employees attendance or documents (such as Stewart Education Services "Mold Hazard Certificate") proving their training. Or, state where these files are kept _____.

"LARGE SIZE" Jobs (EPA over 100 sq. ft.; NYC Level 4)

→ Are personnel performing the work trained in the handling of hazardous materials? Yes ☐ No ☐
→ If yes, attach a copy of their certification.

Outside Contractor for "LARGE SIZE" Jobs

→ Has a professional with experience performing microbial investigation been consulted prior to mold remediation? Yes ☐ No ☐
→ If yes, attach copies of workers and supervisors training and/or certification.

Hazard Communication
A Hazard Communication program must be established whenever employees are potentially exposed to hazardous materials, including mold.

→ Has a Hazard Communication program been set-up? Yes ☐ No ☐

→ Have employees been: notified of the hazards, given written materials explaining the hazards, and trained in their safe use? Yes ☐ No ☐

→ If yes, attach a copy of the program and evidence employees have been trained on these materials.

Compliance Plan
A compliance plan is desirable for all businesses involved with mold hazards.

→ Has a Compliance Program been set-up (this form)? Yes ☐ No ☐

→ If yes, state where the Program is filed _____.

Sale/Rental Disclosure

Upon the sale of residential property, the owner is required to disclose to a potential buyer any known mold or mold remediation on the property. Similar requirement apply to renting residential property.

→ Give property information:

Address of Property _____

Name of Buyer/Lessee _____

Date of Transaction _____

a. Any known mold hazards disclosed to buyer/lessee? Yes ☐ No ☐

b. Were disclosure and warning language attached to sale or lease contract (e.g., *Lease Addendum—Mold Notification*)? Yes ☐ No ☐

c. DHS pamphlet—*Mold in My Home*—given to buyer/lessee? Yes ☐ No ☐

d. Are documents placed in storage? Yes ☐ No ☐

Work Programs

The previous section discussed the general programs a business would need to implement if it intended to provide maintenance services to residential real estate where mold was present.

This section discusses the steps needed to comply with each maintenance, renovation, or construction job. Every time a job comes up, this section needs to be reviewed and updated. The *Mold Work Planning Form* (see Appendix) provides workers in the field with explicit directions for performing safe work practices. This form is downloadable from Stewart Education Services for you to incorporate into your business practices.

→ On the *Mold Work Planning Form*, fill out under Planning the Job with the building information (code, address, unit, work order number, resident name and telephone).

Item #1—Identify Mold Hazard

The first step in any maintenance, renovation, or construction job is to identify the sources of mold hazards.

→ Lead hazards can be identified a number of ways. Check all that apply:

☐ Visible. Are there signs of visible mold? Yes ☐ No ☐

☐ Odor. Is there a moldy or musty smell? Yes ☐ No ☐

☐ Surface Sample or Air Monitoring Yes ☐ No ☐

At this time there are no requirements for Surface Sampling or Air Monitoring. However, these test may have been made and indicate the existence of mold.

→ If the answer is yes to any of these questions, proceed with mold remediation.

Item #2—Determine Job Size

Maintenance tasks need to be categorized as either "Small Size" or "Medium Size" or "Large Size job." These categories will help you select workers for each task, give them the right training, and put appropriate work practices in place. Both routine tasks and those specifically designed to reduce mold hazards should be reviewed this way.

→ For this particular job, complete question 2 on the *Mold Work Planning Form* and choose the Determine Job Size.

Item #3—Personnel Qualifications and Training

All workers, including maintenance workers, must be given basic "awareness" level training on mold if they expect to work in situations with mold hazards. More advanced training is required when frequent maintenance work involves mold in large areas. Keep records of dates when individuals were trained. Some workers may need to obtain DHS-accredited training in handling hazardous materials. Require all contractors doing work that involves mold exposure to provide proof of DHS-accredited training.

→ For this particular job, complete question 3 on the *Mold Work Planning Form* and determine the **Personnel Qualifications**.

Item #4—Resident Notification

Residents should be notified of mold remediation. First, residents are notified that mold has been discovered in their residence. This came about either by a complaint filed by the resident or from a maintenance investigation. Next, residents are notified that work will be conducted in their unit to remediate the mold. After work is finished and the mold is removed, residents are notified the remediation was successful and completed.

A. Notification before work commences: Residents should be notified of mold remediation before work commences.

→Were residents given *Resident Mold Notification Letter* and the DHS pamphlet *Mold in My Home* before work commenced? Yes ☐ No ☐

B. Notice of Work to Be Done:
→Residents were notified of work to be done by:
Phone ☐ Letter ☐ Person ☐ Other ☐_____

→Were residents given *Letter to Resident to Make Repairs*? Yes ☐ No ☐
→

	FROM Times/Date	**TO Time/Date**
Work Scheduled for—		
Residents asked to vacate—		

→Residents moved personal belongings? Yes ☐ No ☐
→Residents placed into temporary accommodations? Yes ☐ No ☐
→If "Yes," were accommodations provided? Yes ☐ No ☐
→State temporary accommodations:
→ (address) _____ (telephone) _____

C. Work Completion Notification: After repairs are made, residents should be given follow-up documents.

→Were residents given *Repair Follow Up Letter* and *Tips to Prevent Mold, Fungi, and Mildew* after work finished? Yes ☐ No ☐

Work Materials and Equipment/Tools

Very specific materials, equipment and tools are required for mold safe work. The *Mold Work Planning Form* provides an easy check-off list of what is needed and used on the job.

You need a system for purchasing the necessary equipment and supplies before beginning any maintenance job. These include "caution" tape, plastic sheeting, and warning signs. Sometimes special power tools are needed.

→ For this particular job, complete section Materials and Equipment and Tools found in the *Mold Work Planning Form*.

Employee Protections

Protective clothing and equipment varies according to the size of the mold contamination. The employer must supply whatever clothing and equipment are required free of charge to workers. You need a system for purchasing, distributing, and maintaining the equipment, and you must train workers in their proper use.

If the work is "Large Size," respirators should be used. Keep the following in mind:

- A complete respirator program must be in place where respirators are used, including: annual face seal fit-testing, regular face seal checking, training, medical determination of fitness for respirator wearing, and provisions for cleaning and storage.

☐ If respirators are to be used, attach a complete written respirator program.

→ For this particular job, complete section Personal Protection found in the *Mod Work Planning Form*.

Work Practices

The written Mold Hazard Program should describe, in detail, the work practices and procedures that must be followed for various types of maintenance and renovation work. Procedures should be spelled out for all aspects of the job—setup, doing the work, cleanup, disposing of waste, and quality assurance. A guide for developing your own safe work practices is the EPA booklet, "Mold Remediation in Schools and Commercial Buildings," (402-K-01-001) (March 2001). These safe work practices were used to develop the *Mold Work Planning Form*.

It is critical to clean up properly after the job is done and never leave work unattended. Also, it is important to provide hand-washing facilities and lunch areas separate from work areas for workers who may have mold exposure.

→ For this particular job, choose the size of the job and complete the appropriate form in the WORK PRACTICES section and Carpet Removal found in the *Mold Work Planning Form*.

Personal Clean Up

→ It is important for workers to clean up from the mold job. Complete the section Personal Clean Up found in the *Mold Work Planning Form*.

Waste Management

Workers should be instructed in the collection and bagging of mold waste. All waste can be disposed in commercial trash bins.

→ For this particular job, complete section Waste Disposal found in the *Work Planning Form*.

Assess the Quality

At this time, there are no formal requirements for testing of mold to achieve clearance. Workers are asked to perform a visual inspection of the work area to assure the mold has been remediated. Other tests could be made but are not required.

→ Complete the Assessments section found in the *Mold Work Planning Form*.

Quality Assurance

At the completion of the job, workers should verify they completed all steps of the job satisfactorily; including waste disposal.

→ For this particular job, complete section Quality Assurance found in the *Work Planning Form*.

Document and Evaluate the Program.

Develop a system to keep track of all the information your program generates and decisions you make. This will help in your efforts to fend off mold litigation and protect resident health.

Keep track of the outside resources your program uses. These may include labs, industrial hygiene services, abatement contractors, equipment suppliers, waste disposal facilities, and government agencies that can answer questions.

Regularly evaluate and improve your program. Programs improve only if you evaluate them periodically and determine what could be done better.

Outside Contractor Qualifications

If an outside contractor is hired to perform "Large Size" mold work, all the following qualifications need to be answered "yes":

→ Does the contractor have a valid California State Contractors License? Yes ☐ No ☐

→ Are all workers state certified with DHS? Yes ☐ No ☐

→ Does the contractor have insurance with a $1,000,000 minimum for property damage per occurrence? Yes ☐ No ☐

→ Does the contractor have $500,000 minimum limit for bodily injury? Yes ☐ No ☐

→ Does the contractor have written documentation to show implementation of (1) Injury and Illness Prevention Program (IIPP), (2) Hazard Communication Program (Hazcom), (3) Respiratory Protection Program, and (4) Site Safety and Health Plan? Yes ☐ No ☐

Can You Afford a Mold Program?

Yes, it is possible to make a mold hazard program affordable. Following safe work practices requires spending some additional money to purchase necessary equipment and supplies (e.g., plastic sheeting, HEPA vacuums, power tools that can take HEPA attachments). But the cost is minimal

compared to the health and safety risks to employees and residents, and the potential for fines from Cal/OSHA, HUD, EPA, and from litigation.

Summary

Compliance Program is needed because:
- Protects health of residents
- Document your efforts to prevent and remediate mold infestations
- Reduce property owners/managers exposure to possible litigation

Program Manager should be knowledgeable on
- Injury and Illness Prevention Program (IIPP)
- Hazard Communication Program
- Medical Surveillance Program
- Design, implementation, and documentation of the Mold Hazard Program.

Mold Hazard Program consists of:
General Programs— Establish all programs that apply to every job and must be in place before work begins:
- Injury and Illness Prevention Program (IIPP) [including a Medical Surveillance Program]
- Workers Training and Certification
  - Certification on Handling Hazardous Materials required for "Large Size" Jobs
- Hazard Communication Program
- Compliance Plan

(Note: These general programs are discussed at length in Stewart Education Services *Lead Hazard* course.)
Sales/Rental
- Sale/Rental Disclosure

Work Programs— Presented Step-by-Step in the *Mold Work Planning Form*.
- Identify Mold Hazards
- Determine Job Size
- Personnel Qualifications and Training
- Resident Notification
- Work Materials and Equipment/Tools
- Employee Protections
- Work Practices
- Personal Clean Up
- Waste Management

- Assess the Quality
- Quality Assurance
- Document and Evaluate the Program

Outside Contractor Qualifications

Mold remediation related to size of job:
"SMALL" Jobs—EPA 10 sq. ft. or less; NYC-Level 1)
"MEDIUM SIZE" Jobs—EPA 10-100 sq. ft. (several wallboard panels); NYC Level 2 & 3)
"LARGE SIZE" Jobs (EPA over 100 sq. ft.; NYC Level 4)

APPENDIX

Many of the documents in this Appendix are available on the web from Stewart Education Services. They are downloadable to your computer in a number of formats. That way, you are able to edit and customize the documents for your own needs. This service is available only to persons who attended one or more of the courses offered by Stewart Education Services.

Visit www.StewartEducationServices.com to review and download these documents.

BILL NUMBER: SB 732

CHAPTERED
BILL TEXT
CHAPTER 584
FILED WITH SECRETARY OF STATE OCTOBER 7, 2001
APPROVED BY GOVERNOR OCTOBER 5, 2001
PASSED THE SENATE SEPTEMBER 13, 2001
PASSED THE ASSEMBLY SEPTEMBER 12, 2001
AMENDED IN ASSEMBLY SEPTEMBER 6, 2001
AMENDED IN ASSEMBLY JULY 18, 2001
AMENDED IN ASSEMBLY JULY 5, 2001
AMENDED IN SENATE MAY 7, 2001
AMENDED IN SENATE APRIL 16, 2001
AMENDED IN SENATE MARCH 29, 2001

INTRODUCED BY Senator Ortiz
(Coauthors: Assembly Members Cohn, Lowenthal, Pavley, and Salinas)
FEBRUARY 23, 2001

An act to amend Section 1102.6 of the Civil Code, and to add Chapter 18 (commencing with Section 26100) to Division 20 of, the Health and Safety Code, relating to **toxic mold**.

LEGISLATIVE COUNSEL'S DIGEST

SB 732, Ortiz. Toxic mold.

Existing law provides the State Department of Health Services with various powers to enforce its regulations, to promulgate regulations to protect the public health, and to enjoin and abate nuisances dangerous to public health. The department is vested with the power to perform studies, evaluate existing projects, disseminate information, and provide training programs to enforce regulations related to public health.

This bill would enact the Toxic Mold Protection Act of 2001. The bill would require the department to convene a task force comprised of various individuals including, but not limited to, health officers, health and medical experts, mold abatement experts, representatives of government-sponsored enterprises, representatives from school districts or county offices of education, representatives of employees and representatives of employers, and affected consumers and affected industries including, residential, commercial, and industrial tenants, proprietors, managers or landlords, insurers, and builders, to advise the department on the development of permissible exposure limits to mold, standards for assessment of molds in indoor environments as well as alternative standards for hospitals, child care facilities, and nursing homes, standards for identification, and remediation of mold.

This bill would require the department to consider the feasibility of adopting permissible exposure limits to molds in indoor environments. If it is determined to be feasible, the department would be required to adopt, in consultation with the task force, permissible exposure limits to mold for indoor environments that avoid adverse health effects. The department would be required to report its progress on developing the permissible exposure limits for molds by July 1, 2003.

This bill would require that, in the process of adopting the permissible exposure limits, the department would be required to conduct studies, consider specific delineated criteria, and consult with the task force to arrive at both permissible exposure limits to mold to avoid adverse effects on health on the general public and alternative permissible exposure limits to avoid adverse health effects for hospitals, child care facilities, and nursing homes, whose primary business is to serve members of a subgroup that is a meaningful portion of the general population. This bill would also require the department, in consultation with the task force, to develop and adopt guidelines for the identification and the remediation of toxic molds.

This bill would require that, after the adoption of permissible exposure limits to molds, the department review and revise the exposure limits at least once every 5 years and consider any new technological or treatment techniques or new scientific evidence that indicates that molds may present a different health risk than was previously determined.

This bill would also require the department to develop and adopt standards for the assessment of the health threat posed by the presence of molds, both visible and invisible or hidden, in indoor environments. The department would be required to consider specific delineated criteria in developing the assessment standard including the

balancing of the protection of public health with technological and economic feasibility. The department would also be authorized to adopt alternative assessment standards for hospitals, child care facilities, and nursing homes. The department would be required to report its progress on developing the assessment standards for molds by July 1, 2003.

After the adoption of mold assessment standards, the department would review and revise the exposure limits at least once every 5 years and consider any new technological or treatment techniques or new scientific evidence that indicates that molds may present a different health risk than was previously determined.

The bill would provide for specific protocol to allow the public to be involved in the process to determine permissible exposure limits to mold, guidelines for identification and remediation of mold, and the guidelines for the assessment of molds.

This bill would require the department to develop public education materials and resources to inform the public about the health effects of molds, methods of prevention, methods of identification and remediation of mold growth, and contact information to organizations or governmental entities to assist public concerns.

This bill would, except under specified circumstances, also require that any person who sells, transfers, or rents residential, commercial, or industrial real property or a public entity that owns, leases, or operates a building who knows, or in specified instances has reasonable cause to believe, that mold is present that affects the unit or building, and the mold exceeds the permissible exposure limits to molds, would be required to provide a written disclosure to potential buyers, prospective tenants, renters, landlords, or occupants of the mold conditions. However, this bill would not require a landlord, owner, seller, or transferor to conduct air or surface tests to determine whether the presence of molds exceeds the permissible exposure limits or for mold remediation.

These disclosure duties and requirements would not apply until the January 1 or July 1 that occurs at least 6 months after the department adopts the requisite standards, and guidelines, as provided in the bill.

This bill would authorize the enforcement of all conditions of this bill, including the disclosure provisions, by designated enforcement officers.

The implementation of this bill would depend on the extent to which the department determines funds are available for its implementation.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 1102.6 of the Civil Code is amended to read:

1102.6. The disclosures required by this article pertaining to the property proposed to be transferred are set forth in, and shall be made on a copy of, the following disclosure form: SEC. 2. Chapter 18 (commencing with Section 26100) is added to Division 20 of the Health and Safety Code, to read:

CHAPTER 18. TOXIC MOLD

Article 1. General Provisions

26100. This chapter shall be known, and may be cited, as the Toxic Mold Protection Act of 2001.

26101. For purposes of this chapter, the following definitions apply:

(a) "Affect" means to cause a condition by the presence of mold in the dwelling unit, building, appurtenant structure, common wall, heating system, or ventilating and air-conditioning system that affects the indoor air quality of a dwelling unit or building.

(b) "Authoritative bodies" means any recognized national or international entities with expertise on public health, mold identification and remediation, or environmental health, including, but not limited to, other states, the United States Environmental Protection Agency, the World Health Organization, the American Conference of Governmental Industrial Hygienists, the New York City Department of Health, the Centers for Disease Control and Prevention, and the American Industrial Hygiene Association.

(c) "Certified Industrial Hygienist" means a person who has met the education, experience, and examination requirements of an industrial hygiene certification organization as defined in Section 20700 of the Business and Professions Code.

(d) "Code enforcement officer" means a local official responsible for enforcing housing codes and maintaining public safety in buildings using an interdepartmental approach at the local government level.

(e) "Department" means the State Department of Health Services, designated as the lead agency in the adoption of permissible exposure limits to mold in indoor environments, mold identification and remediation efforts, and the development of guidelines for the determination of what constitutes mold infestation.

(f) "Indoor environments" means the affected dwelling unit or affected commercial or industrial building.

(g) "Mold" means any form of multicellular fungi that live on plant or animal matter and in indoor environments. Types of mold include, but are not limited to, Cladosporium, Penicillium, Alternaria, Aspergillus, Fuarim, Trichoderma, Memnoniella, Mucor, and Stachybotrys chartarum, often found in water-damaged building materials.

(h) "Person" means an individual, corporation, company, association, partnership, limited liability company, municipality, public utility, or other public body or institution.

(i) "Public health officer" means a local health officer appointed pursuant to Section 101000 or a local comprehensive health agency designated by the board of supervisors pursuant to Section 101275 to carry out the drinking water program.

26101.5. All standards that the department develops pursuant to this chapter shall be in accordance with existing administrative law procedures applicable to the development of regulations.

26101.7. The department shall convene a task force which shall advise the department on the development of standards pursuant to Sections 26103, 26105, 26106, 26120, and 26130. The task force shall be comprised of representatives of public health officers, environmental health officers, code enforcement officers, experts on the health effects of molds, medical experts, certified industrial hygienists, mold abatement experts, representatives of government-sponsored enterprises, representatives from school districts or county offices of education, representatives of employees and representatives of employers, and affected consumers, which include, but are not limited to, residential, commercial and industrial tenants, homeowners, environmental groups, and attorneys, and affected industries, which include, but are not limited to, residential, commercial and industrial building proprietors, managers or landlords, builders, realtors, suppliers of building materials and suppliers of furnishings, and insurers. Task force members shall serve on a voluntary basis and shall be responsible for any costs associated with their participation in the task force. The department shall not be responsible for travel costs incurred by task force members or otherwise compensating task force members for costs associated with their participation in the task force.

26102. The department shall consider the feasibility of adopting permissible exposure limits to mold in indoor environments.

26103. (a) If the department finds that adopting permissible exposure limits to mold in indoor environments is feasible, the department, in consultation with the task force convened pursuant to Section 26101.7, shall:

(1) Adopt permissible exposure limits to mold for indoor environments that avoid adverse effects on health, with an adequate margin of safety, and avoid any significant risk to public health.

(2) Notwithstanding paragraph (1), balance the protection of public health with technological and economic feasibility when it adopts permissible exposure limits.

(3) Utilize and include the latest scientific data or existing standards adopted by authoritative bodies.

(4) Develop permissible exposure limits that target the general population.

(b) The department shall consider all of the following criteria when it adopts permissible exposure limits for molds in indoor environments:

(1) The adverse health effects of exposure to molds on the general population, including specific effects on members of subgroups that comprise a meaningful portion of the general population, which may include infants, children age 6 years and under, pregnant women, the elderly, asthmatics, allergic individuals, immune compromised individuals, or other subgroups that are identifiable as being at greater risk of adverse health effects than the general population when exposed to molds.

(2) The standards for molds, if any, adopted by authoritative bodies.

(3) The technological and economic feasibility of compliance with the proposed permissible exposure limit for molds. For the purposes of determining economic feasibility pursuant to this paragraph, the department shall consider the costs of compliance to tenants, landlords, homeowners, and other affected parties.

(4) Toxicological studies and any scientific evidence as it relates to mold.

(c) The department may develop alternative permissible exposure limits applicable for facilities, which may include hospitals, child care facilities, and nursing homes, whose primary business is to serve members of subgroups that comprise a meaningful portion of the general population and are at greater risk of adverse health effects from molds than the general population. These subgroups may include infants, children age 6 years and under, pregnant women, the elderly, asthmatics, allergic individuals, or immune compromised individuals.

d) The department shall report to the Legislature on its progress in developing the permissible exposure limit for molds by July 1, 2003.

26104. (a) (1) The department shall, at the time it commences preparation of the permissible exposure limits to mold, provide notice electronically by posting on its Internet Web site a notice that informs interested persons that the department has initiated work on the permissible exposure limits to mold.

(2) The notice shall also include a brief description or a bibliography of the technical documents or other information the department has identified to date as relevant to the preparation of the permissible exposure limits.

(3) The notice shall inform persons who wish to submit information concerning exposure to molds of the name and address of the person in the department to whom the information may be sent, the date by which the information must be received in order for the department to consider it in the preparation of the permissible exposure limits, and that all information submitted will be made available to any member of the public who makes the request.

(b) The department may amend the permissible exposure limits to molds to make the limits less stringent if the department shows clear and convincing evidence that the permissible exposure limits to molds should be made less stringent and the amendment is made consistent with Section 26103.

(c) The department may review, and consider adopting by reference, any information prepared by, or on behalf of the United States Environmental Protection Agency or other authoritative bodies, for the purpose of adopting national permissible exposure limits to molds.

(d) At least once every five years, after adoption of permissible exposure limits to molds, the department shall review the adopted limits and shall, consistent with the criteria set forth in subdivisions (a) and (b) of Section 26103, amend the permissible exposure limits if any of the following occur:

(1) Changes in technology or treatment techniques that permit a materially greater protection of public health.

(2) New scientific evidence that indicates that molds may present a materially different risk to public health than was previously determined.

26105. (a) The department, in consultation with the task force convened pursuant to Section 26101.7, shall adopt practical standards to assess the health threat posed by the presence of mold, both visible and invisible or hidden, in an indoor environment.

(b) The department shall adopt assessment standards for molds that do the following:

(1) Protect the public's health.

(2) Notwithstanding paragraph (1), balance the protection of public health with technological and economic feasibility when it adopts assessment standards.

(3) Utilize and include the latest scientific data or existing standards for the assessment of molds adopted by authoritative bodies.

(4) Develop standards that target the general population.

(5) The department shall ensure that air or surface testing is not required to determine whether the presence of mold constitutes a health threat posed by the presence of mold, both visible and invisible or hidden, in an indoor environment.

(c) The department shall consider all of the following criteria when it adopts standards for the assessment of molds in indoor environments:

(1) The adverse health effects of exposure to molds on the general population, including specific effects on members of subgroups that comprise a meaningful portion of the general population, which may include infants, children age 6 years and under, pregnant women, the elderly, asthmatics, allergic individuals, immune compromised individuals, or other subgroups that are identifiable as being at greater risk of adverse health effects than the general population when exposed to molds.

(2) The standards for assessment of molds, if any, adopted by authoritative bodies.

(3) The technological and economic feasibility of compliance with the proposed permissible exposure limit for molds. For the purposes of determining economic feasibility pursuant to this paragraph, the department shall consider the costs of compliance to tenants, landlords, homeowners, and other affected parties.

(4) Any toxicological studies or additional scientific evidence.

(d) The department shall report to the Legislature on its progress in developing the assessment standards for molds by July 1, 2003.

26106. The department may develop alternative assessment standards applicable for facilities, which may include hospitals, child care facilities, and nursing homes, whose primary business is to serve members of subgroups that comprise a meaningful portion of the general population and are at greater risk of adverse health effects to molds than the general population. These subgroups may include infants, children age 6 years and under, pregnant women, the elderly, asthmatics, allergic individuals, or immune compromised individuals.

26107. (a) (1) The department shall, at the time it commences preparation of standards for the assessment of molds, provide notice electronically by posting on its Internet Web site a notice that informs interested persons that the department has initiated work on the assessment standards.

(2) The notice shall also include a brief description, or a bibliography, of the technical documents or other information the department has identified to date as relevant to the preparation of the assessment standards.

(3) The notice shall inform persons who wish to submit information concerning the assessment of molds in indoor environments of the name and address of the person in the department to whom the information may be sent, the date by which the information must be received in order for the department to consider it in the preparation of

the assessment standards, and that all information submitted will be made available to any member of the public who makes the request.

(b) The department may review, and consider adopting by reference, any information prepared by, or on behalf of, the United States Environmental Protection Agency or other authoritative bodies, for the purpose of adopting national assessment standards for molds.

(c) At least once every five years, after adoption of assessment standards for molds, the department shall review the adopted standards and shall, consistent with the criteria set forth in subdivisions (a), (b), and (c) of Section 26105, amend the standards if any of the following occur:

(1) Changes in technology or treatment techniques that permit a materially greater protection of public health.

(2) New scientific evidence that indicates that molds may present a materially different risk to public health than was previously determined.

Article 2. Guidelines for Identification of Molds

26120. The department, in consultation with the task force convened pursuant to Section 26101.7, shall adopt mold identification guidelines for the recognition of mold, water damage, or microbial volatile organic compounds in indoor environments.

26121. Identification guidelines shall include scientifically valid methods to identify the presence of mold including elements for collection of air, surface and bulk samples, visual identification, olfactory identification, laboratory analysis, measurements of amount of moisture, and presence of mold and other recognized analytical methods used for the identification of molds.

26122. (a) Identification guidelines developed by the department shall do all of the following:

(1) Avoid adverse effects on the health of the general population, with an adequate margin of safety, and avoid any significant risk to public health.

(2) Notwithstanding paragraph (1), balance the protection of public health with technological and economic feasibility.

(3) Utilize and include the latest scientific data or existing standards for the assessment of molds adopted by authoritative bodies.

(b) The department shall consider all of the following criteria when it develops identification guidelines for mold:

(1) Permissible exposure limits to molds developed by the State Department of Health Services pursuant to subdivisions (a) and (b) of Section 26103, or what constitutes a health threat posed by the presence of mold, both visible and invisible or hidden, in an indoor environment, according to the department's standards as developed pursuant to Section 26105.

(2) Standards for mold identification, if any, adopted by authoritative bodies.

(3) Professional judgment and practicality.

(4) Toxicological reports or additional scientific evidence.

(c) The department shall not require a commercial, industrial, or residential landlord or a public entity that rents or leases a unit or building to conduct air or surface tests of units or buildings to determine whether the presence of molds exceeds the permissible exposure limits to mold established by subdivisions (a), (b), and (c) of Section 26103.

(d) The department shall develop a reporting form for building inspection that may be used to document the presence of mold.

(e) The department shall report to the Legislature on its progress in developing identification guidelines for mold by July 1, 2003.

26123. The department may review, and consider adopting by reference, any information prepared by, or on behalf of, the United States Environmental Protection Agency or other authoritative bodies, for the purpose of adopting national identification standards for molds.

26124. (a) The department shall, at the time it commences preparation of identification guidelines for mold, electronically post on its Internet Web site a notice that informs interested persons that it has initiated work on the identification guidelines.

(b) The notice shall include a brief description, or a bibliography, of the technical documents or other information the department has identified to date as relevant to the preparation of the identification guidelines for mold.

(c) The notice shall inform persons who wish to submit mold identification information of the name and address of the person in the office to whom the information may be sent, the date by which the information must be received for the department to consider it in the preparation of the identification guidelines, and that all information submitted will be made available to any member of the public who makes the request.

26125. All identification guidelines for mold published by the department shall be reviewed at least once every five years and revised, as necessary, based upon the availability of new scientific data or information on effective mold identification.

Article 3. Guidelines for Remediation

26130. The department, in consultation with the task force convened pursuant to Section 26101.7, shall develop and disseminate remediation guidelines for molds in indoor environments.

26131. (a) Remediation guidelines for mold developed by the department shall do all of the following:

(1) Provide practical guidance for the removal of mold and abatement of the underlying cause of mold and associated water intrusion and water damage in indoor environments.

(2) Protect the public's health.

(3) Notwithstanding paragraph (2), balance the protection of public health with technological and economic feasibility.

(4) Utilize and include toxicological reports, the latest scientific data, or existing standards for the remediation of molds adopted by authoritative bodies.

(5) Provide practical guidance for the removal or cleaning of contaminated materials in a manner that protects the health of the person performing the abatement.

(6) Include criteria for personal protective equipment.

(7) Not require a landlord, owner, seller, or transferor, to be specially trained or certified or utilize the services of a specially qualified professional to conduct the mold remediation.

(b) The department shall consider all of the following criteria when it develops remediation guidelines for mold:

(1) Permissible exposure limits to molds developed by the department pursuant to subdivisions (a) and (b) of Section 26103, or what constitutes a health threat posed by the presence of mold, both visible and invisible or hidden, in an indoor environment, according to the department's guidelines as developed pursuant to Section 26105.

(2) Guidelines for mold remediation, if any, adopted by authoritative bodies.

(3) Professional judgment and practicality.

(c) The department shall not require a commercial, industrial, or residential landlord, or a public entity that rents or leases a unit or building to conduct air or surface tests of units or buildings to determine whether the presence of molds exceeds the permissible exposure limits to mold established by subdivisions (a), (b), and (c) of Section 26103.

(d) The department shall report to the Legislature on its progress in developing remediation standards for mold by July 1, 2003.

26132. (a) The department shall, at the time it commences preparation of remediation guidelines for mold, electronically post on its Internet Web site, a notice that informs interested persons that it has initiated work on the remediation standards.

(b) The notice shall also include a brief description, or a bibliography, of the technical documents or other information the department has identified to date in the preparation of remediation guidelines for mold.

(c) The notice shall inform persons who wish to submit information concerning mold remediation of the name and the address of the person in the office to whom the information may be sent, the date by which the information must be received in order for the department to consider it in the preparation of remediation standards, and that all information submitted will be made available to any member of the public who makes the request.

26133. The department may review, and consider adopting by reference, any information prepared by, or on behalf of, the United States Environmental Protection Agency or other authoritative bodies, for the purpose of adopting national remediation standards for molds.

26134. (a) The department shall make available to the public upon request, information about contracting for the removal of mold in a building or surrounding environment, including all of the following:

(1) Recommended steps to take when contracting with a company to remove mold.

(2) Existing laws, regulations, and guidelines developed by the department, pertaining to permissible exposure limits to mold infestation, identification, and remediation.

(3) Basic health information as contained in existing mold publications.

(b) All mold remediation guidelines published by the department shall be reviewed at least once every five years and revised, as necessary based upon the availability of new scientific data.

(c) (1) The State Department of Health Services shall develop public education materials and resources to inform the public about the health effects of molds, methods to prevent, identify and remediate mold growth, resources to obtain information about molds, and contact information for individuals, organizations, or government entities to assist with public concerns about molds.

(2) The department shall make its public education materials available to public health officers, environmental health officers, commercial and residential landlord organizations, homeowners' organizations, and tenants' organizations. These materials shall be readily available to the general public.

(3) These materials shall be comprehensible to the general public.

(4) These materials shall be produced to include other languages, in addition to English, to accommodate the diverse multicultural population of California.

(5) These materials shall be made available on the department's Internet Web site.

Article 4. Disclosures

26140. (a) Subject to subdivisions (b), (c), and (d), a seller or transferor of commercial or industrial real property, shall provide written disclosure to prospective buyers as soon as practicable before the transfer of title when the seller or transferor knows of the presence of mold, both visible and invisible or hidden, that affects the unit or building and the mold either exceeds permissible exposure limits to molds established by subdivisions (a), (b), and (c) of Section 26103 or poses a health threat, according to the department's guidelines as developed pursuant to Section 26105.

(b) A seller or transferor of commercial or industrial real property shall be exempt from providing written disclosure pursuant to this subdivision if the presence of mold was remediated according to the mold remediation guidelines developed by the department pursuant to Section 26130.

(c) A commercial or industrial real property landlord shall not be required to conduct air or surface tests of units or buildings to determine whether the presence of molds exceeds the permissible exposure limits to molds established by subdivisions (a) and (b) of Section 26103.

(d) The requirements of this section shall not apply until the first January 1 or July 1 that occurs at least six months after the department adopts standards pursuant to Sections 26103 and 26105 and develops guidelines pursuant to Section 26130.

26141. (a) Subject to subdivisions (c), (d), and (e), commercial and industrial landlords shall provide written disclosure to prospective and current tenants of the affected units as specified in subdivision (b), when the landlord knows that mold, both visible and invisible or hidden, is present that affects the unit or the building and the mold either exceeds the permissible exposure limits to molds established by subdivisions (a) and (b) of Section 26103 or poses a health threat according to the department's guidelines as developed pursuant to Section 26105.

(b) The written notice required by subdivision (a) shall be provided:

(1) To prospective tenants as soon as practicable and prior to entering into the rental agreement.

(2) To current tenants in affected units as soon as is reasonably practical.

(c) A commercial and industrial landlord shall be exempt from providing written disclosure to prospective tenants pursuant to this section if the presence of mold was remediated according to the mold remediation guidelines developed by the department pursuant to Section 26130.

(d) A commercial or industrial landlord shall not be required to conduct air or surface tests of units or buildings to determine whether the presence of molds exceeds the permissible exposure limits to molds established by subdivisions (a) and (b) of Section 26103.

(e) The requirements of this section shall not apply until the first January 1 or July 1 that occurs at least six months after the department adopts standards pursuant to Sections 26103 and 26105 and develops guidelines pursuant to Section 26130.

26142. Any tenant of a commercial or industrial real property who knows that mold is present in the building, heating system, ventilating or air-conditioning system, or appurtenant structures, or that there is a condition of chronic water intrusion or flood, shall inform the landlord of this knowledge in writing within a reasonable period of time. The tenant shall make the property available to the landlord or his or her agents for appropriate assessment or remedial action as soon as is reasonably practicable if the landlord is responsible for maintenance of the property. Nothing in this section is intended to any way affect existing duties and obligations of residential tenants and landlords.

26143. Commercial and industrial landlords, who know or have notice that mold is present in the building, heating system, ventilating or air-conditioning system, or appurtenant structures, or that there is a condition of chronic water intrusion or flood, have an affirmative duty, within a reasonable period of time, to assess the presence of mold or condition likely to result in the presence of mold and conduct any necessary remedial action.

26144. The requirements of this article shall not apply to properties where the tenant is contractually responsible for maintenance of the property, including any remedial action.

26145. Any tenant of a commercial or industrial real property who knows or is informed that mold is present in the building, heating system, ventilating or air-conditioning system, or appurtenant structures, or that there is a condition of chronic water intrusion or flood, and is responsible for maintenance of the property shall inform the landlord in writing of that knowledge as soon as is reasonably practicable and shall correct the condition in compliance with the terms of the contract with the landlord.

26146. (a) A public entity that owns, leases, or operates a building shall provide written disclosure to all building occupants and prospective tenants as specified in subdivision (b) when the public entity knows, or has reasonable cause to believe, that a condition of chronic water intrusion or flood exists, or that mold, both visible and invisible or hidden, is present that affects the building or unit and the mold either exceeds the permissible exposure limits to molds established by subdivisions (a) and (b) of Section 26103, or poses a health threat according to the department's guidelines developed pursuant to Section 26105.

(b) The written notice required by subdivision (a) shall be provided:

(1) To prospective tenants as soon as practicable and prior to entering into the rental agreement.

(2) To current building occupants in affected units or buildings as soon as is reasonably practical.

(c) A public entity shall be exempt from providing written disclosure to prospective tenants pursuant to subdivision (a) if the presence of mold was remediated according to the mold remediation guidelines developed by the department pursuant to Section 26130.

(d) The requirements of this section shall not apply until the first January 1 or July 1 that occurs at least six months after the department adopts standards pursuant to Sections 26103 and 26105 and develops guidelines pursuant to Section 26130.

26147. (a) Subject to subdivisions (b), (d), and (e), residential landlords shall provide written disclosure to prospective and current tenants of the affected units as specified in subdivision (b) when the residential landlord knows, or has reasonable cause to believe, that mold, both visible and invisible or hidden, is present that affects the unit or the building and the mold either exceeds the permissible exposure limits to molds established by subdivisions (a), (b), and (c) of Section 26103 or poses a health threat according to the department's guidelines as developed pursuant to Section 26105.

(b) Notwithstanding subdivision (a), a residential landlord shall not be required to conduct air or surface tests of units or buildings to determine whether the presence of molds exceeds the permissible exposure limits to molds established by subdivisions (a) and (b) of Section 26103.

(c) The written disclosure required by subdivision (a) shall be provided:

(1) To prospective tenants prior to entering into the rental or lease agreement.

(2) To current tenants in affected units as soon as is reasonably practical.

(d) A residential landlord shall be exempt from providing written disclosure to prospective tenants pursuant to this section if the presence of mold was remediated according to the mold remediation guidelines developed by the department pursuant to Section 26130.

(e) The requirements of this section shall not apply until the first January 1 or July 1 that occurs at least six months after the department adopts standards pursuant to Sections 26103 and 26105 and develops guidelines pursuant to Section 26130.

26148. (a) Residential landlords shall provide written disclosure to prospective tenants of the potential health risks and the health impact that may result from exposure to mold by distributing a consumer oriented booklet developed and disseminated by the department.

(b) The requirements of this section shall be provided to prospective residential tenants prior to entering the rental or lease agreement.

(c) The requirements of this section shall not apply until the first January 1 or July 1, that occurs at least six months after the department approves the consumer oriented booklet, as described in subdivision (a).

26149. (a) Nothing in this article shall relieve a seller, transferor, lessor, agent, landlord, or tenant from any responsibility for compliance with other obligations, laws, ordinances, codes, or regulations, including but not limited to the duties outlined in Sections 1941 and 1941.1 of the Civil Code and any other duties provided for under common law.

(b) Nothing in this article shall alter or modify any right, remedy, or defense otherwise available under law.

26150. (a) Nothing in this article shall affect the existing obligations of the parties or transferor to a real estate contract, or their agents, to disclose any facts materially affecting the value and desirability of the property, including, but not limited to, the physical conditions of the property and previously received reports of physical inspections noted on the disclosure form set forth in Section 1102.6 or 1102.6a of the Civil Code.

(b) Nothing in this article shall be construed to change the existing inspection and disclosure duties of a real estate broker or salesperson including, but not limited to, those duties imposed by Section 2079 of the Civil Code.

26151. The specification of items for disclosure in this article does not limit or abridge any obligation for disclosure created by any other provision of law, or which may exist in order to avoid fraud, misrepresentation, or deceit in the transfer transaction.

26152. All items subject to disclosure requirements pursuant to this article shall be subject to enforcement pursuant to Article 5 (commencing with Section 26154).

26153. Neither the transferor nor any listing or selling agent shall be held liable for any error, inaccuracy, or omission of any information delivered pursuant to this article if the error, inaccuracy, or omission was not within the personal knowledge of the transferor, or the listing or selling agent, or was based on information timely provided by public agencies, or by other persons providing relevant information by delivery of a report or opinion prepared by an expert dealing with matters within the relevant scope of the professional's license or expertise, and ordinary care was exercised in obtaining and transmitting it.

Article 5. Enforcement

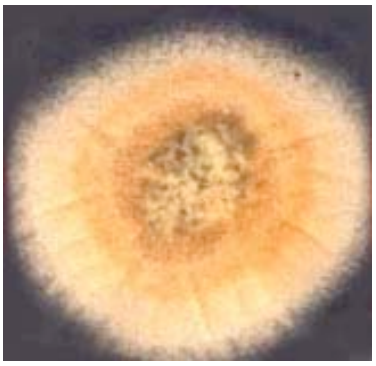
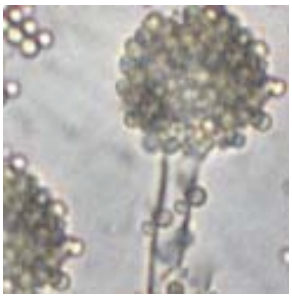
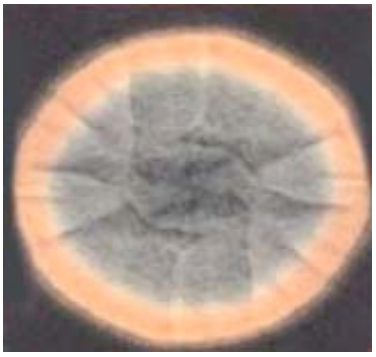
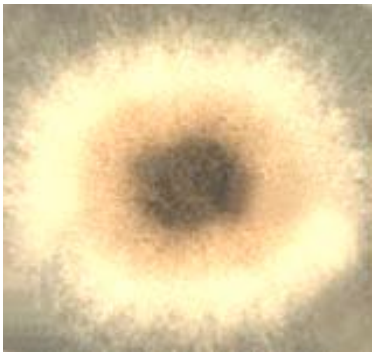
26154. Public health officers, code enforcement officers, environmental health officers, city attorneys, and any other appropriate government entities may respond to complaints about mold and may enforce standards adopted by the department, pursuant to subdivisions (a), (b), and (c) of Section 26103 and subdivisions (a), (b), and (c) of

Section 26105, and enforce the disclosure requirements of Sections 26147 and 26148 that are developed by the department in consultation with the task force. The disclosure enforcement guidelines established by the department pursuant to this section shall include development of a form for disclosure and the penalties, if any, that may be imposed for failure to disclose. No penalty shall be assessed against an owner for failure to disclose under Section 26147 where the owner provides disclosure to the tenants in a form that substantially conforms to the disclosure form developed by the department. Local authority to enforce disclosure requirements pursuant to this section shall not apply until the first January 1 or July 1 that occurs at least six months after the department adopts disclosure enforcement guidelines for compliance with Sections 26147 and 26148.

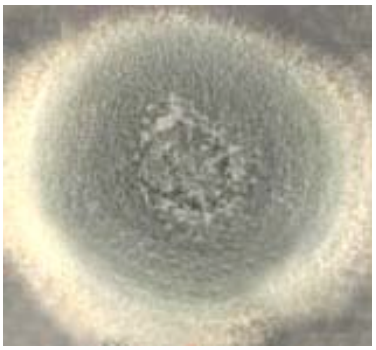
26155. After the State Department of Health Services, pursuant to administrative law procedures, submits the proposed regulations developed pursuant to this chapter, the Department of Consumer Affairs, in consultation with representatives from the State Department of Health Services, the Department of Industrial Relations, and members of the task force convened by the department pursuant to Section 26101.7, shall consider and report on the need for standards for mold testing professionals and mold remediation specialists.

Article 6. Implementation

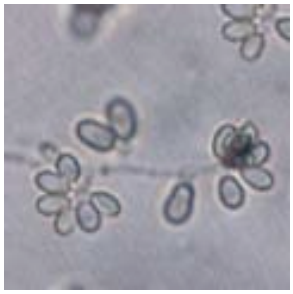
26156. This chapter shall be implemented only to the extent that the department determines that funds are available for the implementation of this chapter.

Description	Appearance	Under the microscope
Aspergillus flavus This fungus is found on water-damaged building materials and carpets. It is associated with ear, eye, lung, heart, and bladder infections. It produces aflatoxin mycotoxins depending on growth conditions.		
Aspergillus fumigatus Commonly found in house dust, decaying plant material, soil, feathers, and wood chips, it causes systemic mycosis in humans and domestic animals. This fungus produces many mycotoxic metabolites.		
Aspergillus niger This fungus is extremely common and can be found on textiles, grains, vegetables, fruits, and soil. It causes skin diseases, ear infections (otomycosis), and "fungus ball" in human lungs. It produces many types of metabolites.		

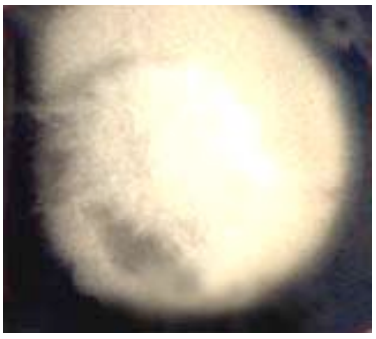
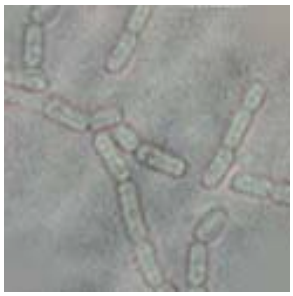
Aspergillus versicolor
This fungus is commonly found in house dust and air and is the sign of moisture problems in buildings. It produces sterigmatocystin mycotoxin that is carcinogenic and causes eye, nose, and throat irritation. It emits a musty, earthy odor.



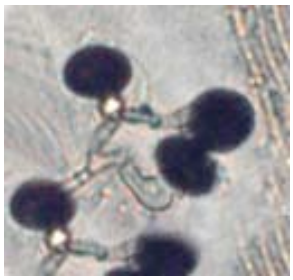

Botrytis
Commonly known as "gray mold," this fungus grows on plants, soft fruits and vegetables. It causes allergies and asthmatic attacks. Greenhouses are known to have higher concentrations of the fungus.

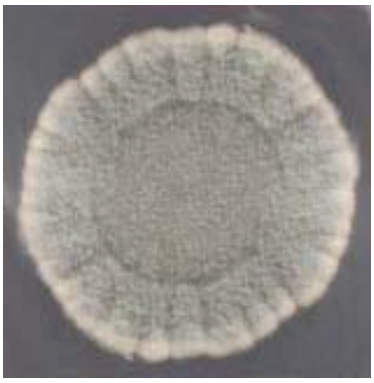
Geotrichum
Found in dairy products and soil, this fungus is pathogenic to humans. It produces colorless, slimy spores, and some species give off strong odors.

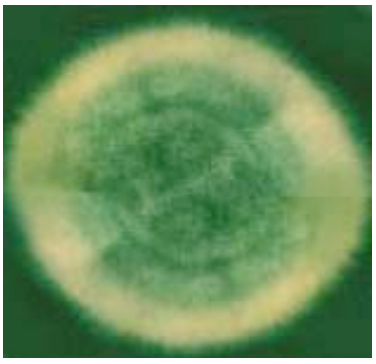
Nigrospora
Often found in white wooly colonies, *Nigrospora* grows rapidly and is allergenic. Besides growing on building surfaces, it is saprophytic (plant parasite).

Penicillium brevicompactum
This fungus is commonly found in water-damaged wallpaper, carpets and insulation. It is allergenic and causes hypersensitivity pneumonitis, keratitis, penicilliosis, and otomycosis. It produces the mycotoxin mycophenolic acid.

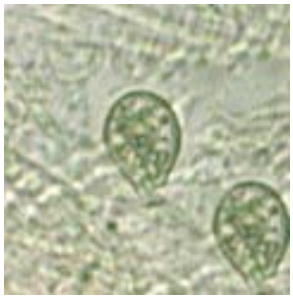



Penicillium chrysogenum
This fungus was the first discovered to produce penicillin. It is characterized by its dark green colony. It produces mycotoxins roquefortine C, chrysogine, and meleagrin.



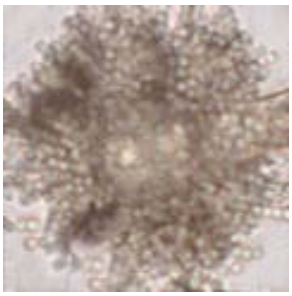

Scopulariopsis
Scopulariopsis is found on a wide range of materials including old carpets and water-damaged walls and wallpaper. It is allergenic and can decompose compounds containing arsenic (found in some paints and wallpapers).

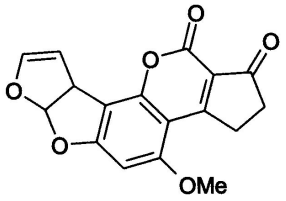
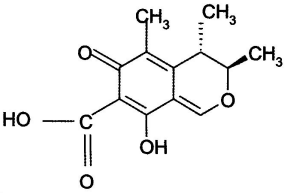
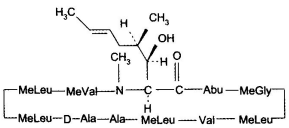
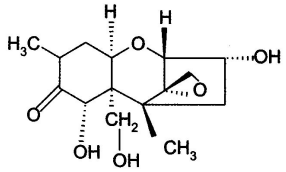
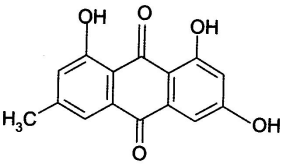
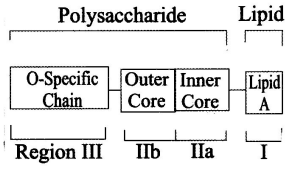
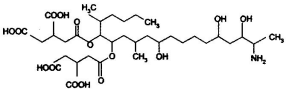

Sporotrichum
Commonly found in decaying plant matter and wet/rotting wood, *Sporotrichum* is allergenic. It is similar to the human pathogen *Sporothrix*.

Syncephalastrum

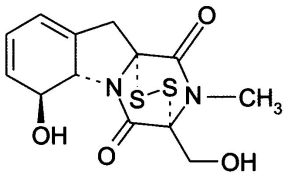
This fungus is found in soils and dung and is considered nonpathogenic in humans.



Name	Description	Structural Formula
Aflatoxin B_1 $C_{12}H_{12}O_6$ Mycotoxin	Produced by *Aspergillus flavus* and related fungus, ***Aflatoxin*** is the most researched mycotoxin in the world. It is carcinogenic and is regulated by the FDA in food and feed.	
Citrinin $C_{13}H_{14}O_5$ Mycotoxin	Produced by *Penicillium sp.* & *Aspergillus sp.*, ***Citrinin*** is nephrotoxic (damages kidneys).	
Cyclosporin A $C_{16}H_{111}N_{11}O_{12}$ Mycotoxin	Produced by *Tolypocladium inflatum*, ***Cyclosporin*** is an immunosupressant and carcinogen. California Proposition 65 requires notification of this mycotoxin.	
Deoxynivalenol (DON) $C_{15}H_{20}O_6$ Mycotoxin	Produced by *Fusarium graminearum*, ***Deoxynivalenol*** causes weight loss in livestock.	
Emodin $C_{15}H_{10}O_5$ Mycotoxin	Produced by *Cladosporium cladosporioides* and *Penicillium sp.*, ***Emodin*** is a natural laxative with antibiotic properties.	
Endotoxins Gram-negative Bacteria	The outer membrane of *Gram-negative* bacteria produces toxins termed ***Endotoxins***.	
Fumonisin B_1 $C_{34}H_{59}NO_{15}$ Mycotoxin	Produced by *Fusarium moniliforme* and found on corn and corn products, ***Fumonisins*** cause adverse health effects in livestock and animals.	

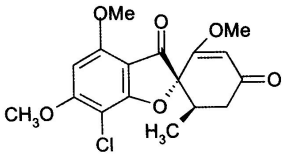
Gliotoxin
$C_{13}H_{14}N_2O_4S_2$
Mycotoxin

Produced by *Aspergillus fumigatus* and *Penicillium sp.*, ***Gliotoxin*** suppresses the immune system and is cytotoxic.



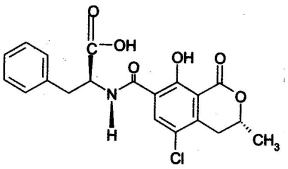
Griseofulvin
$C_{17}H_{17}ClO_6$
Mycotoxin

Produced by *Penicillium griseofulvum* and *Memnoniella echinata*, ***Griseofulvin*** causes tumorgenic, tetratogenic, and hepatotoxis health reactions, and is controlled under California Proposition 65.



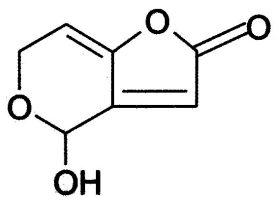
Ochratoxin A
$C_{20}H_{18}ClNP_6$
Mycotoxin

Produced by *Aspergillus ochraceus*, *Penicillium verrucosum* and *P. viridicatum*, ***Ochratoxin*** is a toxic metabolite controlled under California Proposition 65.



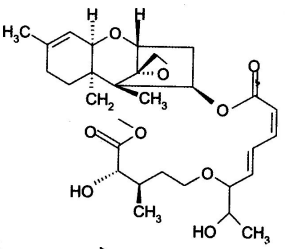
Patulin
$C_7H_6O_4$
Mycotoxin

Produced *by Penicillium expansum*, ***Patulin*** causes adverse health effects and is regulated by a number of countries.



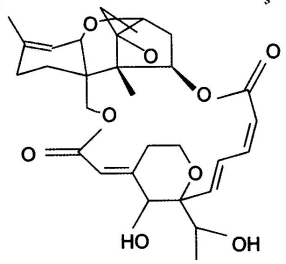
Roridin A
$C_{29}H_{40}O_9$
Mycotoxin

Produced by *Myrothecium sp.*, and *Stachybotrys chartarum*, ***Roridin*** is not commonly found during indoor air quality investigations.



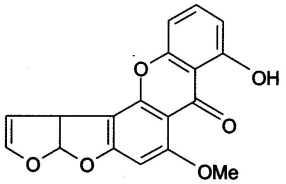
Satratoxin H
$C_{29}O_9H_{37}$
Mycotoxin

Produced by *Stachybotrys chartarum*, ***Satratoxin*** has very high cytotoxicity.



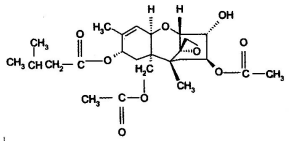
Sterigmatocystin
$C_{18}H_{12}O_6$
Mycotoxin

Produced by *Aspregillus versicolor,* ***Sterigmatocystin*** is carcinogenic and causes hepatotoxic reactions. It is controlled under California Proposition 65.



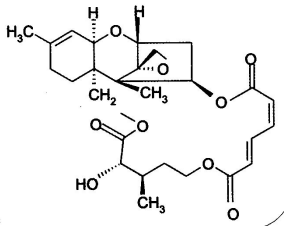
T-2 Toxin
$C_{24}H_{34}O_9$
Mycotoxin

Produced by *Fusarium sp*., **T-2 Toxin** causes genetic damage, cell death, hemorrhage, nausea, vomiting, and suppresses the immune system.



Verrucarin A
$C_{27}H_{34}O_9$
Mycotoxin

Produced by *Myrothecium sp*., ***Verrucarin*** are closely related to Roridin mycotoxins and produces similar health effects.



Resident Mold Notification Letter (Sample)

Dear Resident(s):

We are committed to maintaining a high quality living environment for our residents. This letter provides information and guidelines to help you avoid and, if necessary, address mold and mildew problems you might experience in your home.

Molds, fungus, and mildew are found everywhere in our environment. They can be found on wood, cement, wallpaper, and painted walls, besides in soil and air, on clothing, and elsewhere. Most are harmless whereas a few produce substance toxic to animals and humans. Molds require excess moisture to grow. It is the moisture problem that both you and our company can address to control the problem.

Excess moisture happens when water pipes leak continuously, rainwater is trapped, steam from cooking and showers is not ventilated, and more. The attached California Department of Health pamphlet — *Mold in My Home* concisely explains the problem and makes suggested remedies. We ask that you read the pamphlet.

Here are some of the simple steps you can take to reduce moisture buildup:

- Make sure your home is well ventilated.
- Use ceiling fans when cooking, showering, or using the laundry. Let them run a few minutes after you are done with your task.
- Wipe down any excessive moisture from walls, ceilings, windowsills, and counter tops.
- Most importantly, report any signs of water leakage or mold growth to the property management company/owner.

If you have any questions on this issue, please contact the property manager/owner.

Please sign and date this form and return it to the property manager/owner. The DHS pamphlet — *Mold in My Home* is yours to keep and follow.

Receipt Acknowledgement

_____
Owner/Agent Signature

√_____
Resident Signature
Date: √_____

Lease Addendum — Mold Notification

We are committed to maintaining a high quality living environment for our residents. To that end, the Owner/Manager of the property has inspected your unit prior to lease and has found no damp or wet building materials, and no current evidence of mold or mildew contamination.

Prior Mold: Has this unit had previous mold contamination? ☐ yes ☐ no
If yes, describe the problem and date it was remediated: _____
_____
_____

Resident Responsibility: Resident(s) agree to maintain their unit in a manner that prevents the growth of mold or mildew. Residents agree to uphold their responsibility by complying, in part, with the responsibilities listed below:

- Resident agrees to use exhaust fans whenever cooking, dishwashing, showering, bathing, or cleaning. Malfunctioning fans are to be reported to the Owner/Manager.
- Resident agrees to immediately report to Owner/Manager, any leaking or "sweating" pipes or water fixtures, or water intrusion from ceilings or walls.
- Residents agree to report any water overflows from kitchen sinks, laundry facilities, or bathroom sinks, toilets, and shower/tubs. This is most important if the water has permeated walls or cabinets.
- Residents agree to keep the unit clean and free of debris that supports mold growth.
- Residents agree to keep windows, doors and openings closed when outside water may intrude into the unit (from rain or sprinklers).
- Residents agree to report to Owner/Manager any significant mold or mildew growth.
- Residents agree to dry any visible moisture found on walls, windows, counter tops, and other surfaces in a reasonable amount of time. Mold can grow on wet surfaces in a relatively short time, within 24 to 48-hours.
- Residents agrees to indemnify and hold harmless the Owner/Manager of the property arising from any action, damages, expenses, losses, or claims, including attorneys' fees, sustained by the Owner/Manager arising from negligence by the Resident or other person living, using, or occupying the premises.

√_____ _____
Resident Signature Date

Move-In/Move-Out Mold Inspection Checklist

Address: _____ City: _____ Unit #: _____
Unit Type: _____ # Bedrooms _____ # Baths: _____
Move-In Date: _____ Move-Out Date: _____

An inspection of the unit occurs when residents sign a lease and move-in and again when they move-out. This should document that the unit was clear of mold upon move-in. This form is used a second time upon resident move-out to document mold damages by residents.

For each room, check off if there is evidence of mold. If yes, describe the damage.

Room	**Mold Evidence?**		**Description of Mold Damage**
	Yes	No	
Entry	☐	☐	
Living	☐	☐	
Kitchen	☐	☐	
Bedrooms	☐	☐	
Bathrooms	☐	☐	
Laundry	☐	☐	
HVAC	☐	☐	
Balcony/Patio	☐	☐	

Additional Comments: _____
_____
_____

Inspected by: √_____ Date: _____

Maintenance Mold Inspection/Repair Checklist

This form is used as a general guide in the inspection of residential property for the evidence of mold and/or environmental conditions leading to mold, fungus, and mildew growth.

Address: _____ Unit #:_____
Date: _____ Inspection Conducted by: _____

If there is no evidence of mold and the area is dry, check √ None.
If there is evidence of mold, or the area is moist, check √ Needs Repair.
If the item does not apply, draw a line through it.
For multiple bedrooms and bathrooms, if there is an item that needs repair, place a number next to that item reflecting its numbered room.

EXTERIOR	None	Needs Repair	KITCHEN	None	Needs Repair	BATHROOM	None	Needs Repair
Front Door	☐	☐	Cabinets (inside)	☐	☐	Cabinets (inside)	☐	☐
Gutters	☐	☐	Dishwasher	☐	☐	Ceiling Vents	☐	☐
Planters	☐	☐	Disposal	☐	☐	Flooring	☐	☐
Stairs	☐	☐	Dryer Vent	☐	☐	Shower Head	☐	☐
ENTRY/HALL	☐	☐	Exhaust Fans	☐	☐	Shower Doors	☐	☐
Carpets	☐	☐	Flooring	☐	☐	Sinks/Popup	☐	☐
Closets (inside)	☐	☐	GCFI	☐	☐	Toilet	☐	☐
Doors and Jam	☐	☐	Hoses	☐	☐	Tub Caulking	☐	☐
Flooring	☐	☐	Icemaker connections	☐	☐	Walls and Ceiling	☐	☐
Windows	☐	☐	Refrigerator	☐	☐	Window/Sills	☐	☐
LIVING ROOM	☐	☐	Sink	☐	☐	HVAC	☐	☐
Carpet and Tack	☐	☐	Walls and Ceilings	☐	☐	Air Circulation	☐	☐
Closets (inside)	☐	☐	Washer/Dryer	☐	☐	Baseboard Heaters	☐	☐
Doors	☐	☐	BEDROOM	☐	☐	Condensate Pan	☐	☐
Doors (sliding)	☐	☐	Carpet and Tack	☐	☐	Condenser Coil/Fan	☐	☐
Stairs/Railings	☐	☐	Closets (inside)	☐	☐	Filters (replace)	☐	☐
Walls and Ceilings	☐	☐	Doors	☐	☐	Operation	☐	☐
Window/Sills	☐	☐	Doors (sliding)	☐	☐	Vents (all)	☐	☐
PATIO/BALCONY	☐	☐	HVAC vents	☐	☐	Walls around AC drip	☐	☐
Deck Surface	☐	☐	Light Fixtures	☐	☐		☐	☐
Railings	☐	☐	Shower Access Panel	☐	☐		☐	☐
Rain Gutters	☐	☐	Walls and Ceilings	☐	☐		☐	☐
Roof	☐	☐	Window/Sills	☐	☐		☐	☐
Water Heater Fittings	☐	☐		☐	☐		☐	☐

Was a *Resident Mold Notification Letter* left with the resident? Yes☐ No☐

Comments: _____

Letter to Resident to Make Repairs (Sample)

Address: _____ Unit #: _____

Dear Resident(s):

We inspected your apartment for plumbing leaks, signs of current or past moisture, standing water, and mold/mildew on _____.

We found the following problems (check all that apply):

Mold/Moisture
☐ Moisture (excessive)
☐ Plumbing Leaks
☐ No evidence of mold, mildew, leaks or excessive moisture were found.

If problems were found, we took the following actions to correct the situation:
☐ Repaired Leaks
☐ Removed Materials Affected by Mold and Moisture
☐ Cleaned with Bleach Solution

Some items require us to return. These include:
☐ Recleaning the area.
☐ Painting the affected area.
☐ Reinspection

If you discover additional mold or moisture problems, please contact the leasing office.

_____
Owner/Manager

Repair Follow Up Letter (Sample)

Address: _____ Unit #: _____

Dear Resident(s):

We recently inspected and/or made repairs to your apartment to correct mold and mildew damage. We have completed our inspection/repairs. We hope that this addresses your concerns about mold and mildew.

When we completed the inspection/repairs to your apartment, we left behind a tip sheet. *Tips to Prevent Mold, Fungi, and Mildew* is a summary of the California Department of Health Services suggestions to address this problem. You'll find the tips helpful in preventing future occurrences of mold, fungus, or mildew.

If mold should return, or you notice dripping water or excessive moisture (conditions leading to the growth of mold), please call the property management company immediately.

Sincerely,

_____
Owner/Manager

Date: _____

Tips to Prevent Mold, Fungi, and Mildew

Cleaning to prevent mold, fungi, and mildew are considered tasks performed by the apartment resident. If excess moisture is controlled, mold cannot grow and there will be no need to conduct cleaning procedures.

The common household causes of excessive moisture include:
- House Plants
- Steam Generated while Showering, Bathing, and Cooking.
- Drying Clothes Indoors

There are three simple steps used to eliminate the growth of mold— removing excess moisture, keeping things clean (eliminate the food source), and have adequate air circulation.

Remove Excess Moisture
- Make sure mops, brushes and cleaning supplies are completely dry before they are stored in closets or other enclosed areas.
- Wipe down shower doors and bathroom walls immediately after taking a shower or bathing. These towels need to be washed and dried often to reduce the chance of mold growth.
- Similarly, if moisture condenses on walls or windows, wipe them down and dry out the towels.

Keeping Things Clean
- Keeping clothes, dresser drawers, towels, and closets clean reduces the opportunity for mold and mildew to grow.
- Greasy films found in kitchen walls provide nutrients for mold to grow. It is important to clean these walls often.

Air Circulation
- Allow dry outside air to circulate through your apartment, this includes opening closets and cabinets.
- Use the ceiling fans found in bath/laundry rooms to help remove moist air. Sometimes the air conditioning system (fan setting) can be used to circulate air.
- Wet coats and clothing should not be hung in closed off closets. Instead, allow them to dry before putting them away.

Cleaning Small Areas Contaminated with Molds
The EPA recommends cleaning a small area with soap (or detergent) and then allow the area to dry. The use of a spray-on household biocide (such as Lysol Disinfectant, Tilex Mildew Remover, or Clorox Cleaner) is **NOT** recommended.

Do not apply biocides on porous surfaces (such as sheetrock or cottage cheese ceilings). For large areas infested with mold or areas composed of porous surfaces, call the management company.

Mold Work Planning Form (English) (8 pages)

DHS: Mold in My Home (English) (4 pages)

DHS: Mold in My Home (Spanish) (4 pages)

EPA Guidelines: Mold Remediation in Schools and Commercial Buildings (54 pages*)*

Notes:

Stewart Education Services

www.StewartEducationServices.com

I N V O I C E

PURCHASER INFORMATION (PRINT OR TYPE)

NAME _____

Mailing Address 1 _____

Mailing Address 2 _____

City _____ State _____

Country _____ Zip _____

Telephone _____

E-mail _____

SHIP TO: (IF DIFFERENT THAN PURCHASER)

NAME _____

Mailing Address 1 _____

Mailing Address 2 _____

City _____ State _____

Country _____ Zip _____

Telephone _____

E-mail _____

Quantity	Description	Unit Price	Total
	Bankrupt Your Student Loans and Other Discharge Strategies By Chuck Stewart, Ph.D. 2005 (290 pages) You will be guided, step-by-step, in the process of filing an adversary proceeding to discharge your student loans or negotiate a Compromise or Write-Off. Perfect or Comb binding. ISBN 0-9764154-5-3	$34.95	
	Lead Hazards in Residential Real Estate By Chuck Stewart, Ph.D. 2005 (516 pages) This is the most comprehensive book ever written on the problem of LEAD in residential real estate. ISBN 0-9764154-3-7	$89.95	
	Lead Hazards Teaching Packages (contains two complete packages) By Chuck Stewart, Ph.D. 2005 Contains both the OWNER Package and WORKER Package. Both packages contain color-coded curriculum, set of handouts, slide presentation on DVD, and 60-minute action DVD with English, Spanish and Chinese subtitles.	$119.95	
	Mold Hazards in Residential Real Estate By Chuck Stewart, Ph.D. 2005 (140 pages) The most comprehensive book ever written on the problem of MOLD in residential real estate. ISBN 0-9764154-4-5	$29.95	
	Mold Hazards Teaching Package (for Mold Hazards in Residential Real Estate) By Chuck Stewart, Ph.D. 2005 The package contains: • color-coded curriculum • set of handouts • slide presentation on DVD • 15-minute action DVD with English, Spanish and Chinese subtitles.	$79.95	
		Subtotal	
	PROMOTIONAL DISCOUNTS: Enter Code here _____ **Example**: If you received a flyer offering a discount toward purchase of these books, write the code on the line above, and then calculate the discount. Attach the promotional flyer to this invoice. For example, if the discount is 10%, calculate 10% of the Subtotal, write it in the right-hand column and subtract to get a New Subtotal.	(subtract)	
		New Subtotal	
	California Residents add 8.25% Sales Tax	Sales Tax	
	Shipping Notes: All books are mailed in the US by US Mail Book Rate unless special arrangements are made. For 1-5 books, include $5.90. For 6-10 books, include $9.70. All orders over $120.00, shipping is free. Contact us for rushed and International rates.	Shipping and Handling	
		Total	

Make checks payable to Stewart Education Services. Send completed Invoice with payment to:

Stewart Education Services, 3722 Bagley Ave. #19, Los Angeles, CA 90034-4113

Personal checks, money orders, cashier's checks, Pay-Pal accepted.
No cash or credit cards. Allow 4-6 weeks for delivery.
Questions? Call 310-838-6247 or E-mail to: info@StewartEducationServices.com

ISNB 0-9764154-4-5

$29.95