

## MEMORANDUM (Updated from April 9, 2019 version)

**TO:** Rental Housing Subcommittee Members      **DATE:** May 7, 2019

**FROM:** Fred Murry, Assistant City Manager  
Jeff Look, Interim Code Enforcement Manager  
Amy Carpus, GRU - Residential Efficiency Program Coordinator III  
Nicolle Shalley, City Attorney

**SUBJECT:** Rental Housing Code

This Memorandum brings together three topics the Rental Housing Subcommittee has been discussing – Landlord License Rental (No. 170873), Short-Term Vacation Rentals (No. 180399), and Energy Efficiency (No. 180591) into a single regulatory framework. Staff envisions the ordinance to create this new regulatory framework would delete the existing Article I. titled “Landlord Permits” in Chapter 14.5, City Code of Ordinances and create a new Article IV. titled “Rental Housing Code” in Chapter 13 of the City Code of Ordinances.

Staff prepared a Memorandum on this topic dated April 9, 2019. The Rental Housing Subcommittee discussed the Memorandum on April 16 and made a 10 part motion requesting additional information and revisions to the draft regulatory framework. This additional information and revisions have been incorporated into this Updated Memorandum.

The following provides a step-by-step guide to crafting a Rental Housing Code and reflects the Subcommittee’s discussions to-date:

### What are the problems that currently exist (aka “findings of fact”)?

The City Commission will need to make findings of fact concerning the problems that exist that are creating the need for City regulation. This means locating and citing to some level of proof/documentation/common knowledge that rental units in the City do not currently meet the minimum housing code, are not energy efficient and do not contain life safety equipment. Staff will assist with crafting these findings based on Commission discussion.

### What is the public purpose for the City to regulate?

The City Commission will need to articulate a public purpose (general health, safety and welfare) that supports the City regulation – such as “eliminating substandard rental dwelling units and ensuring that rental dwelling units within the City of Gainesville meet minimum housing code, life safety and energy efficiency standards and that enforcement mechanisms are in place to hold landlords accountable for compliance.”

### Identify who/what is regulated?

The City Commission will need to identify who/what is regulated – such as a “regulated unit” means each dwelling unit (dwelling unit is currently defined in Sec. 30-2.1 of the City Land Development Code as “a room or rooms in a dwelling, other than a dormitory, comprising the essential elements of a single housekeeping unit. Each area with one address for billing, one electric meter, and/or one full kitchen shall be considered a separate dwelling unit”) located in a condominium, co-op, timeshare, quadraplex, triplex, duplex or single-family structure that is rented for periods of at least 30 days or 1 calendar month and that is not advertised or held out to the public as a place regularly rented for periods of less than 1 month.

**Note:** The above definition has been crafted to avoid violating the State preemption of the regulation of “public lodging establishments” in Section 509.032(7), Florida Statutes, which reads as follows:

“(7) Preemption authority.--

(a) The regulation of public lodging establishments and public food service establishments, including, but not limited to, sanitation standards, inspections, training and testing of personnel, and matters related to the nutritional content and marketing of foods offered in such establishments, is preempted to the state. This paragraph does not preempt the authority of a local government or local enforcement district to conduct inspections of public lodging and public food service establishments for compliance with the Florida Building Code and the Florida Fire Prevention Code, pursuant to ss. 553.80 and 633.206.

(b) A local law, ordinance, or regulation may not prohibit vacation rentals or regulate the duration or frequency of rental of vacation rentals. This paragraph does not apply to any local law, ordinance, or regulation adopted on or before June 1, 2011.”

Section 509.013(4)(a), Florida Statutes, defines “public lodging establishment” as:

“1. ‘Transient public lodging establishment’ means any unit, group of units, dwelling, building, or group of buildings within a single complex of buildings which is rented to guests more than three times in a calendar year for periods of less than 30 days or 1 calendar month, whichever is less, or which is advertised or held out to the public as a place regularly rented to guests.

2. ‘Nontransient public lodging establishment’ means any unit, group of units, dwelling, building, or group of buildings within a single complex of buildings which is rented to guests for periods of at least 30 days or 1 calendar month, whichever is less, or which is advertised or held out to the public as a place regularly rented to guests for periods of at least 30 days or 1 calendar month.”

Section 509.242, Florida Statutes, lists the following classifications for “public lodging establishments” that are regulated by the State:

“(1) A public lodging establishment shall be classified as a hotel, motel, nontransient apartment, transient apartment, bed and breakfast inn, timeshare project, or vacation rental if the establishment satisfies the following criteria:

(a) Hotel.—A hotel is any public lodging establishment containing sleeping room accommodations for 25 or more guests and providing the services generally provided by

a hotel and recognized as a hotel in the community in which it is situated or by the industry.

(b) Motel.--A motel is any public lodging establishment which offers rental units with an exit to the outside of each rental unit, daily or weekly rates, offstreet parking for each unit, a central office on the property with specified hours of operation, a bathroom or connecting bathroom for each rental unit, and at least six rental units, and which is recognized as a motel in the community in which it is situated or by the industry.

(c) Vacation rental.--A vacation rental is any unit or group of units in a condominium or cooperative or any individually or collectively owned single-family, two-family, three-family, or four-family house or dwelling unit that is also a transient public lodging establishment but that is not a timeshare project.

(d) Nontransient apartment.--A nontransient apartment is a building or complex of buildings in which 75 percent or more of the units are available for rent to nontransient tenants.

(e) Transient apartment.--A transient apartment is a building or complex of buildings in which more than 25 percent of the units are advertised or held out to the public as available for transient occupancy.

(f) Bed and breakfast inn.--A bed and breakfast inn is a family home structure, with no more than 15 sleeping rooms, which has been modified to serve as a transient public lodging establishment, which provides the accommodation and meal services generally offered by a bed and breakfast inn, and which is recognized as a bed and breakfast inn in the community in which it is situated or by the hospitality industry.

(g) Timeshare project.--A timeshare project is a timeshare property, as defined in chapter 721, that is located in this state and that is also a transient public lodging establishment."

Section 509.013(4)(b), Florida Statutes, excludes some types of non-transient units from the definition of "public lodging establishment":

"Any place renting four rental units or less, unless the rental units are advertised or held out to the public to be places that are regularly rented to transients;" and

"[a]ny unit or group of units in a condominium, cooperative, or timeshare plan and any individually or collectively owned one-family, two-family, three-family, or four-family dwelling house or dwelling unit that is rented for periods of at least 30 days or 1 calendar month, whichever is less, and that is not advertised or held out to the public as a place regularly rented for periods of less than 1 calendar month, provided that no more than four rental units within a single complex of buildings are available for rent"

Based on current state law, which appears to have remained unchanged after the 2019 State Legislative Session, the City is preempted from regulating and inspecting transient (meaning held out as regularly rented for less than 30 days) rentals and apartment buildings.

### **What are the regulations?**

The City Commission will need to specify the regulatory requirements. The text shown in ~~strikethrough~~ and underline below reflects the revisions to the staff draft that were made by the Rental Housing Subcommittee on April 16.

- A. Commencing October 2019, each owner of a regulated unit that is actively rented shall obtain an annual permit for each regulated unit as follows:
- a. Apply and obtain permit within first month of tenant occupying the unit, and renew the permit each year thereafter. The applicant for a landlord permit shall comply with the following requirements.
1. Submit to the City a receipt signed by the tenant(s) of each regulated unit, in which the tenant(s) confirm that the applicant provided them with a complete copy of the following documents and that the tenant(s) read the documents in their entirety: ~~Chapter 83, Part II, Florida Statutes titled "Residential Tenancies"; this Article IV. "Rental Housing Code" of the City Code;~~ a copy of the completed Self Inspection Checklist (described in C below) for the regulated unit, the current version of the "Florida's landlord/tenant law" brochure prepared by the Florida Department of Agriculture and Consumer Services and the current version of the "Landlord and Tenant Bill of Rights" prepared by the City.
  2. Certify that, in the event the city provides notice of repeated violations of the following City Codes occurring at the regulated unit: Noise (chapter 15); Animal control (chapter 5 and Alachua County Code); Solid waste (article III of chapter 27); Over occupancy (Section 30-4.10) Yard parking (subsection 30-56(c)(4)); Insects, storage, trash and yard maintenance (Section 13-171); or hazardous conditions (Section 13-181); the applicant will pursue all lawful remedies available under Section 83.56, Florida Statutes, regarding termination of the rental agreement due to the tenant's failure to comply with Chapter 83, Florida Statutes, the provisions of the lease or this Code.
  3. Certify that he/she is the fee simple owner of the regulated unit or is the agent of the fee simple owner of the regulated unit.
  4. Provide the name, address, and telephone number of a contact person who resides within Alachua County to receive communications from the city concerning the permit.
  5. Maintain a list of the names of the occupant(s) in each regulated unit, and provide such list to the city in a reasonable amount of time upon request.
  6. Allow inspection of the regulated unit for violations of this article, as well as violations of the housing code (article II of chapter 13 of the Code of Ordinances) at any reasonable time; however, this provision shall not be interpreted as authorizing the city to conduct an inspection

of an occupied rental unit without obtaining either the consent of an occupant or a warrant.

7. Self-certify compliance (described in C below) with the living standards.

- b. Permits are valid from August 1 of each year (or date of issuance) to July 31 of following year;

**Note:** The Subcommittee asked staff to look at alternative times throughout the year at which permits could be issued. Staff recommends maintaining the existing permit cycle and issue all permits according to that cycle. Current permit holders are familiar with that cycle and staff at this point is uncertain how to equally split them into different cycles. Direction-based (which was discussed) such as NE, SE, SW and NW is not an equal split, alphabetical by first initial of owner's last name is possible, but a more informed decision could be made once the regulations are further developed by the City Commission and staff can analyze the expected pool of regulated units.

- c. The permit fee is per property (defined as parcel of land with a property appraiser parcel ID number) based on number of number of regulated units under common ownership on that property – as an example based on the current landlord permit fees it would be \$147 for single unit, \$220.50 for two units, \$294 for three units and \$367.50 for four units. If the permit is applied for during the last half of the permit year (between February 1 – July 31), one-half of the permit fee is due.

**Note:** Section 166.221, Florida Statutes, limits the amount of fees that may be charged as follows: "A municipality may levy reasonable business, professional, and occupational regulatory fees, commensurate with the cost of the regulatory activity, including consumer protection, on such classes of businesses, professions, and occupations, the regulation of which has not been preempted by the state or a county pursuant to a county charter."

B. Each regulated unit must meet living standards as follows:

- a. By ~~August 2019~~ January 1, 2020, each regulated unit must meet **life safety standards**: (see page 3 of self-inspection checklist attached as **Exhibit A**)
- b. By ~~August 2020~~ January 1, 2021, each regulated unit must meet **minimum housing code standards**: (see pages 1 and 2 of self-inspection checklist attached as **Exhibit A**)
- c. By ~~August 2021~~ January 1, 2021, each regulated unit must meet **energy efficiency standards**: (see page 3 of self-inspection checklist attached as **Exhibit A**)

C. Annual certification of self-inspection of each regulated unit is required as follows:

~~Commencing August 1, 2019~~, Each owner of a regulated unit (at time of permit application and renewal) shall self-certify compliance with the living standards then in effect. From August 2019 to ~~July 2022~~ December 31, 2020, the City Code Enforcement Department will conduct random inspections to educate and promote voluntary compliance with the living standards.

**D. Inspection by City Code Enforcement:**

Commencing ~~August 1, 2022~~ January 1, 2021, the City Code Enforcement Department will inspect 25% of all regulated units for compliance with these regulations. This inspection cycle will repeat every four (4) years.

**E. Enforcement and Penalties**

- a. Failure to apply for permit. If the city manager or designee has reasonable cause to believe that a regulated unit is occupied without a permit in violation of this article, the owner(s) of the property shall be given notice that the owner(s) shall, within 30 days of the date notice was given, either: a) provide evidence that a permit is not required, or b) submit a permit application. Failure to either provide evidence that a permit is not required, or submit a permit application within 30 days of the date notice was given shall subject the owner(s) to a notice of violation of this article and code enforcement proceedings. Fines imposed by the code enforcement proceedings shall stop accruing, and be calculated as due and payable to the city, upon the date of occurrence of any of the following events:
- (1) A landlord permit is obtained for the subject property;
  - (2) The subject property is no longer occupied in violation of this article;
  - (3) The subject property has been relinquished by the owner(s) by sale, foreclosure, or other action that dispossesses the owner(s) of title to the property; or
  - (4) The landlord permit year for which the owner(s) is in arrears ends.
- b. Failure to meet a living standard, after warning and time to comply shall subject the owner(s) to a notice of violation of this article and code enforcement proceedings, including:
- i. Fines
  - ii. Cannot obtain/renew permit until the regulated unit is in compliance.

**Note regarding mold:** The Subcommittee requested information on regulating mold. The proposed regulatory framework does not address mold directly. It does, however, address the cause of mold growth -- which is moisture. The living standards include plumbing leaks and seals around window and doors, all of which can introduce moisture into a dwelling, which in turn can cause mold growth. These are appropriately responsibilities of the property owner. The Federal Environmental Protection Agency publishes a booklet on "Mold, Moisture and Your Home" (a copy is attached as **Exhibit B**). One of the challenges in Florida is high humidity levels. You will see the EPA booklet provides information about the presence of mold spores in all dwellings and solutions to reduce/eliminate moisture and humidity so as to stop the growth of mold. Many of these solutions are appropriately responsibilities of the occupant of the dwelling.

Currently, if an occupant produces conclusive evidence that toxic mold is present in a dwelling, City Code Enforcement may be able to cite the unit for the existence of a hazardous condition.

Unfortunately, mold testing is costly and results are often inconclusive. Typical testing costs are \$300.00 for the first test and \$75.00 each additional test with a recommendation of one test for every 600 square feet of floor space (i.e., testing a 1000 square foot dwelling would cost \$375.00.)

### **What is the budget estimate, both revenues and expenditures, for the Rental Housing Code?**

When more details of a regulatory framework are determined, Staff will refine the below budget estimate and adjust the proposed permit fees to achieve revenue neutrality.

#### **Revenue**

Staff estimates the total number of regulated units may be 16,388. Based on current landlord permit fees, the total annual permit revenue is estimated to be \$2,267,181.00 broken down by unit type as follows: single unit - 13,267 @ \$147.00 = \$1,950,249.00, duplex – 726 @ \$220.50 = \$160,083.00, triplex – 191 @ \$294.00 = \$56,154.00, quadraplex – 274 @ \$367.50 = \$100,695.00. If the new regulations do not become effective until after January 31, 2020, a half-year of revenue is estimated to be \$1,133,590.50.

#### **Expenditures**

Staff and operating budget (for permitting and random inspections during the education/compliance period – until December 31, 2020): The total budget expenditure for the staff (inclusive of salary and benefits) associated with the current Landlord Permit process is \$214,188.00, broken down as follows: LLP Coordinator \$81,463.20, Field Collector \$60,465.60 and Code Enforcement Officer \$72,259.20. The estimated total budget expenditure for additional staff and operating budget needed to support the proposed regulatory framework is \$588,856, broken down as follows: 5 FTE - Staff specialist \$37,500.00 = \$187,500.00; 2 FTE - Code Enforcement Officer \$60,500.00 = \$121,000.00; 1 FTE - Clerk 1 Budget and Finance 34,777.50; 1 FTE - Cashier 1 Budget and Finance \$34,777.50; 1 FTE - IT software architect \$93,589.50; 1 FTE - Action officer (likely to be in Equal Opportunity) \$51,911.50; and Code Enforcement operating budget increase of 33% \$65,300.00.

One time cost of \$56,000 for 2 vehicles and 8 Computers

Office Space is difficult to estimate. The private sector going annual rate per square foot averages \$15.00. The estimated need for 8 FTE would be 800 square feet for an annual cost of \$12,000.00. The challenge comes in finding a suitable building, most are a minimum of 2000 square feet and the cost would be an average of \$30,000.00 annually. There are some city owned buildings with sufficient space; however, they would require some remodeling and furniture at an unknown cost.

Additional staff and operating budget (for enforcement inspections commencing January 1, 2021): 5 FTE - Code Enforcement Officer \$60,500.00 = \$302,500.00 (based on inspection process of 4,100 inspections annually, repeated every 4 years) or, alternatively, 4 FTE - Code Enforcement Officer \$60,500.00 = \$242,000.00 (based on inspection process of 3,280 inspections annually, repeated every 5 years)

One time cost would include 5 vehicles and 5 Computers \$110,000.00

**EXHIBIT A to Updated Memorandum dated May 7, 2019**

**DRAFT – City of Gainesville - Self Inspection Checklist**

Owners or their designees should recognize that this list is used for compliance with the City Rental Housing Code. In addition to the Rental Housing Code, owners are responsible for ensuring their rental units are in compliance with other applicable provisions of the City of Gainesville Code.

	<b>Compliance or Non-Compliance</b>	<b>N/A</b>	<b>Comments</b>
<b>MINIMUM HOUSING CODE</b>			
<b>Exterior</b>			
Foundation in sound condition			
Exterior walls are free from damage			
Roof is in good repair			
House numbers are visible from the street			
Exterior lighting is in working order			
Exterior stairs, porches, and balconies are in good repair			
Exterior doors are weather tight and able to be locked.			
Windows are in good working order and free from damage.			
Screens in place where central air is not provided			
<b>Landscaping</b>			
Lawns are maintained			
Yards are free of Junk, Trash and Debris			
Trash containers are stored out of view except for pick-up day			
<b>Building Miscellaneous</b>			
Pools shall comply with all state, county and city code to include proper fencing			
Parking shall be restricted to approved parking plan with-in certain districts			
<b>Interior/ All rooms</b>			
Walls are free of holes and cracks			
Light switches work as designed and have cover plates			
Electrical outlets are functional and have cover plates			
Windows open as designed and lock closed			
Floor covers are free of trip hazards and are able to be kept clean			



	<b>Compliance or Non-Compliance</b>	<b>N/A</b>	<b>Comments</b>
<b>Kitchen</b>			
Stove/Range works properly with a minimum of three burners			
Stove hood system in place and functioning			
Kitchen sink has hot and cold water			
No plumbing leaks			
Counter top sound and able to be kept clean			
Refrigerator is a minimum of 5 cubic feet and working properly			
<b>Bedroom(s)</b>			
Switch controlling a light upon entering			
Minimum 50 square feet			
Window of at least 8% of square feet			
Window openable to at least an area of 20"X24"			
<b>Bathroom(s)</b>			
Floors and walls intact and water-resistant			
A window or ventilation system required			
All plumbing operational with hot and cold water and no leaks			
Switch controlling a light upon entering			
Vanity is sound condition			
<b>Other/ Miscellaneous</b>			
All electrical systems are in sound condition with no exposed wiring			
Electrical panel label clearly and of at least 100 AMPs			
Smoke detectors are required on each floor of a dwelling as well as outside each sleeping room			
Smoke detectors for the hearing impaired shall provide a signal approved for persons with such disabilities			
Property is free from insect infestation			
Heating system must be able to heat the entire home to 65°F			

	<b>Compliance or Non-Compliance</b>	<b>N/A</b>	<b>Comments</b>
<b>Life Safety Items</b>			
Carbon Monoxide alarms present in all dwellings using natural gas, propane, or fuel oil			
Fire extinguishers provided in kitchen			
<b>Energy Efficiency</b>			
Attic insulation minimum of R-19, except where there is insufficient space or the presence of attic flooring will not allow			
Attic access weather stripped and insulated to a minimum of R-19			
All accessible duct joints sealed and all ducts insulated			
Insect screens on all windows that can open			
Fireplace chimneys have working dampers, doors, or closures			
Plumbing system is free of leaks			
All showerheads with a 3.0 gal/min flow rate or less			
All faucets aerators with a 2.5 gal/min flow rate or less			
Water heater(s) have a properly functioning Temperature/Pressure Relief Valve (TPRV)			
Water heater pipes insulated for the first 3' from the unit (excepting gas units)			
All water lines not in enclosed space must be insulated			
Properly maintained refrigerator with door seal/gasket intact and clean coils			
HVAC filter(s) are new or clean at time of move-in			
HVAC system(s) have had maintenance performed by a currently licensed HVAC or Mechanical contractor within the year prior to move-in.			
Programmable thermostat connected to main HVAC system			



**A BRIEF GUIDE TO  
MOLD,  
MOISTURE,  
AND  
YOUR HOME**

EPA 402-K-02-003  
(Reprinted 09/2012)

**This Guide provides  
information and guidance  
for homeowners and  
renters on how to clean  
up residential mold  
problems and how to  
prevent mold growth.**

*U.S. Environmental Protection Agency  
Office of Air and Radiation  
Indoor Environments Division  
1200 Pennsylvania Avenue, N. W.  
Mailcode: 6609J  
Washington, DC 20460  
[www.epa.gov/iaq](http://www.epa.gov/iaq)*

# A BRIEF GUIDE TO MOLD, MOISTURE, AND YOUR HOME

<b>Contents</b>	<b>Page</b>
<b>Mold Basics</b>	
Why is mold growing in my home?	2
Can mold cause health problems?	2
How do I get rid of mold?	3
<b>Mold Cleanup</b>	
Who should do the cleanup?	4
<b>Mold Cleanup Guidelines</b>	6
<b>What to Wear When Cleaning Moldy Areas</b>	8
<b>How Do I Know When the Remediation     or Cleanup is Finished?</b>	9
<b>Moisture and Mold Prevention and Control Tips</b>	10
Actions that will help to reduce humidity	11
Actions that will help prevent condensation	12
Testing or sampling for mold	13
<b>Hidden Mold</b>	14
<b>Cleanup and Biocides</b>	15
<b>Additional Resources</b>	16



# MOLD BASICS

- The key to mold control is moisture control.
- If mold is a problem in your home, you should clean up the mold promptly *and* fix the water problem.
- It is important to dry water-damaged areas and items within 24-48 hours to prevent mold growth.

**Why is mold growing in my home?** Molds are part of the natural environment. Outdoors, molds play a part in nature by breaking down dead organic matter such as fallen leaves and dead trees, but indoors, mold growth should be avoided. Molds reproduce by means of tiny spores; the spores are invisible to the naked eye and float through outdoor and indoor air. Mold may begin growing indoors when mold spores land on surfaces that are wet. There are many types of mold, and none of them will grow without water or moisture.



*Mold growing outdoors on firewood. Molds come in many colors; both white and black molds are shown here.*

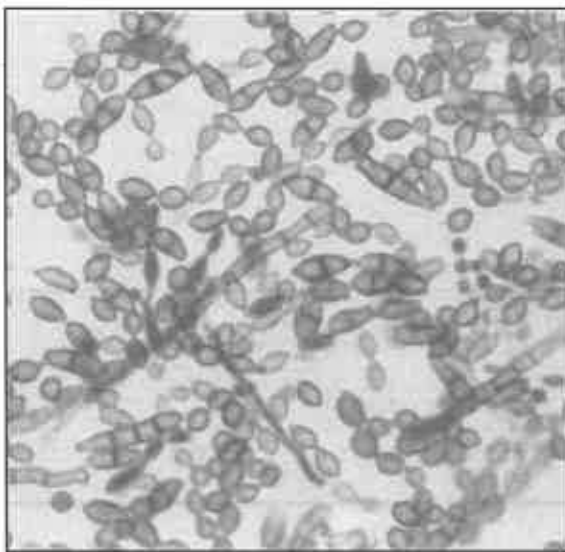
**Can mold cause health problems?** Molds are usually not a problem indoors, unless mold spores land on a wet or damp spot and begin growing. Molds have the potential to cause health problems. Molds produce allergens (substances that can cause allergic reactions), irritants, and in some cases, potentially toxic substances (mycotoxins).

Inhaling or touching mold or mold spores may cause allergic reactions in sensitive individuals. Allergic responses include hay fever-type symptoms, such as sneezing, runny nose, red eyes, and skin rash (dermatitis). Allergic reactions to mold are common. They can be immediate or delayed. Molds can also cause asthma attacks in people with asthma who are allergic to mold. In addition, mold exposure can irritate the eyes, skin, nose, throat, and lungs of both mold-

allergic and non-allergic people. Symptoms other than the allergic and irritant types are not commonly reported as a result of inhaling mold.

Research on mold and health effects is ongoing. This brochure provides a brief overview; it does not describe all potential health effects related to mold exposure. For more detailed information consult a health professional. You may also wish to consult your state or local health department.

**How do I get rid of mold?** It is impossible to get rid of all mold and mold spores indoors; some mold spores will be found floating through the air and in house dust. The mold spores will not grow if moisture is not present. Indoor mold growth can and should be prevented or controlled by controlling moisture indoors. If there is mold growth in your home, you must clean up the mold **and** fix the water problem. If you clean up the mold, but don't fix the water problem, then, most likely, the mold problem will come back.



*Magnified mold spores.*

**Molds can gradually destroy the things they grow on. You can prevent damage to your home and furnishings, save money, and avoid potential health problems by controlling moisture and eliminating mold growth.**

# MOLD

## CLEANUP



*Leaky window – mold is beginning to rot the wooden frame and windowsill.*

If you already have a mold problem – **ACT QUICKLY.** Mold damages what it grows on. The longer it grows, the more damage it can cause.

**Who should do the cleanup?** Who should do the cleanup depends on a number of factors. One consideration is the size of the mold problem. If the moldy area is less than about 10 square feet (less than roughly a 3 ft. by 3 ft. patch), in most cases, you can handle the job yourself, following the guidelines below. However:

- If there has been a lot of water damage, and/or mold growth covers more than 10 square feet, consult the U.S. Environmental Protection Agency (EPA) guide: *Mold Remediation in Schools and Commercial Buildings*. Although focused on schools and commercial



buildings, this document is applicable to other building types. It is available on the Internet at: [www.epa.gov/mold](http://www.epa.gov/mold).

- If you choose to hire a contractor (or other professional service provider) to do the cleanup, make sure the contractor has experience cleaning up mold. Check references and ask the contractor to follow the recommendations in EPA's *Mold Remediation in Schools and Commercial Buildings*, the guidelines of the American Conference of Governmental Industrial Hygienists (ACGIH), or other guidelines from professional or government organizations.
- If you suspect that the heating/ventilation/air conditioning (HVAC) system may be contaminated with mold (it is part of an identified moisture problem, for instance, or there is mold near the intake to the system), consult EPA's guide *Should You Have the Air Ducts in Your Home Cleaned?* before taking further action. Do not run the HVAC system if you know or suspect that it is contaminated with mold - it could spread mold throughout the building. Visit [www.epa.gov/iaq/pubs](http://www.epa.gov/iaq/pubs) to download a copy of the EPA guide.
- If the water and/or mold damage was caused by sewage or other contaminated water, then call in a professional who has experience cleaning and fixing buildings damaged by contaminated water.
- If you have health concerns, consult a health professional before starting cleanup.

# MOLD **CLEANUP** GUIDELINES

## **BATHROOM TIP**

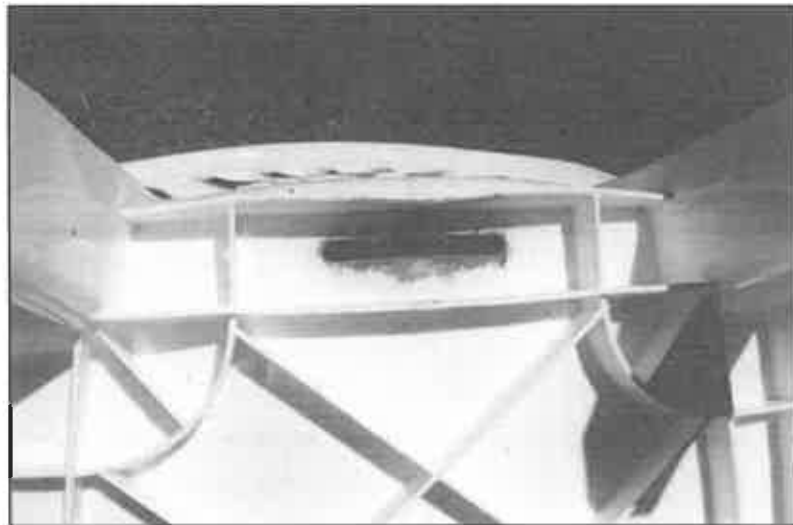
Places that are often or always damp can be hard to maintain completely free of mold. If there's some mold in the shower or elsewhere in the bathroom that seems to reappear, increasing the ventilation (running a fan or opening a window) and cleaning more frequently will usually prevent mold from recurring, or at least keep the mold to a minimum.



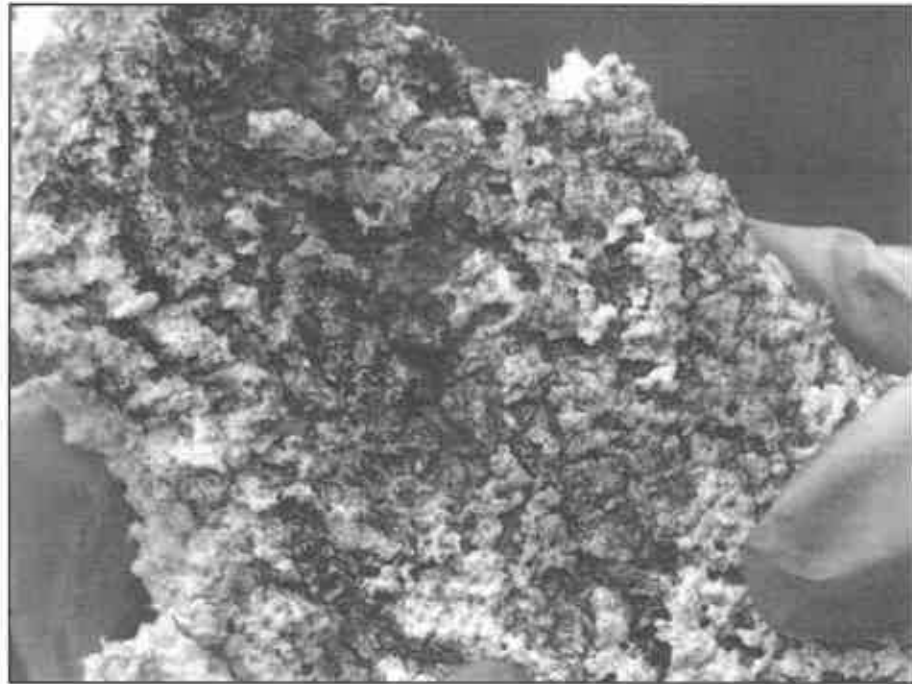
**Tips and techniques** The tips and techniques presented in this section will help you clean up your mold problem. Professional cleaners or remediators may use methods not covered in this publication. Please note that mold may cause staining and cosmetic damage. It may not be possible to clean an item so that its original appearance is restored.

- **Fix plumbing leaks and other water problems as soon as possible. Dry all items completely.**
- **Scrub mold off hard surfaces with detergent and water, and dry completely.**

*Mold growing on the underside of a plastic lawnchair in an area where rainwater drips through and deposits organic material.*



*Mold growing on a piece of ceiling tile.*



- Absorbent or porous materials, such as ceiling tiles and carpet, may have to be thrown away if they become moldy. Mold can grow on or fill in the empty spaces and crevices of porous materials, so the mold may be difficult or impossible to remove completely.
- Avoid exposing yourself or others to mold (see discussions: **What to Wear When Cleaning Moldy Areas** and **Hidden Mold**.)
- Do not paint or caulk moldy surfaces. Clean up the mold and dry the surfaces before painting. Paint applied over moldy surfaces is likely to peel.
- If you are unsure about how to clean an item, or if the item is expensive or of sentimental value, you may wish to consult a specialist. Specialists in furniture repair, restoration, painting, art restoration and conservation, carpet and rug cleaning, water damage, and fire or water restoration are commonly listed in phone books. Be sure to ask for and check references. Look for specialists who are affiliated with professional organizations.

## WHAT TO WEAR WHEN

# CLEANING

## MOLDY AREAS



*Mold growing on a suitcase stored in a humid basement.*

**It is important  
to take  
precautions to  
LIMIT  
YOUR  
EXPOSURE  
to mold and  
mold spores.**

- **Avoid breathing in mold or mold spores.** In order to limit your exposure to airborne mold, you may want to wear an N-95 respirator, available at many hardware stores and from companies that advertise on the Internet. (They cost about \$12 to \$25.) Some N-95 respirators resemble a paper dust mask with a nozzle on the front, others are made primarily of plastic or rubber and have removable cartridges that trap most of the mold spores from entering. In order to be effective, the respirator or mask must fit properly, so carefully follow the instructions supplied with the respirator. Please note that the Occupational Safety and Health Administration (OSHA) requires that respirators fit properly (fit testing) when used in an occupational setting; consult OSHA for more information (800-321-OSHA or [osha.gov/](http://osha.gov/)).

- **Wear gloves.** Long gloves that extend to the middle of the forearm are recommended. When working with water and a mild detergent, ordinary household rubber gloves may be used. If you are using a disinfectant, a biocide such as chlorine bleach, or a strong cleaning solution, you should select gloves made from natural rubber, neoprene, nitrile, polyurethane, or PVC (see **Cleanup and Biocides**). Avoid touching mold or moldy items with your bare hands.

- **Wear goggles.** Goggles that do not have ventilation holes are recommended. Avoid getting mold or mold spores in your eyes.



*Cleaning while wearing N-95 respirator, gloves, and goggles.*

**How do I know when the remediation or cleanup is finished?** You must have completely fixed the water or moisture problem before the cleanup or remediation can be considered finished.

- You should have completed mold removal. Visible mold and moldy odors should not be present. Please note that mold may cause staining and cosmetic damage.
- You should have revisited the site(s) shortly after cleanup and it should show no signs of water damage or mold growth.
- People should have been able to occupy or re-occupy the area without health complaints or physical symptoms.
- Ultimately, this is a judgment call; there is no easy answer.

# MOISTURE AND MOLD **PREVENTION** AND CONTROL TIPS

## **MOISTURE** Control is the Key to Mold Control



*Mold growing  
on the surface  
of a unit  
ventilator.*

- When water leaks or spills occur indoors - **ACT QUICKLY.** If wet or damp materials or areas are dried 24-48 hours after a leak or spill happens, in most cases mold will not grow.

- Clean and repair roof gutters regularly.
- Make sure the ground slopes away from the building foundation, so that water does not enter or collect around the foundation.
- Keep air conditioning drip pans clean and the drain lines unobstructed and flowing properly.



*Condensation on the inside of a window-pane.*

- Keep indoor humidity low. If possible, keep indoor humidity below 60 percent (ideally between 30 and 50 percent) relative humidity. Relative humidity can be measured with a moisture or humidity meter, a small, inexpensive (\$10-\$50) instrument available at many hardware stores.

- If you see condensation or moisture collecting on windows, walls or pipes - ACT QUICKLY to dry the wet surface and reduce the moisture/water source. Condensation can be a sign of high humidity.

#### **Actions that will help to reduce humidity:**

- ◆ Vent appliances that produce moisture, such as clothes dryers, stoves, and kerosene heaters to the outside where possible. (Combustion appliances such as stoves and kerosene heaters produce water vapor and will increase the humidity unless vented to the outside.)
- ◆ Use air conditioners and/or de-humidifiers when needed.
- ◆ Run the bathroom fan or open the window when showering. Use exhaust fans or open windows whenever cooking, running the dishwasher or dishwashing, etc.

### **Actions that will help prevent condensation:**

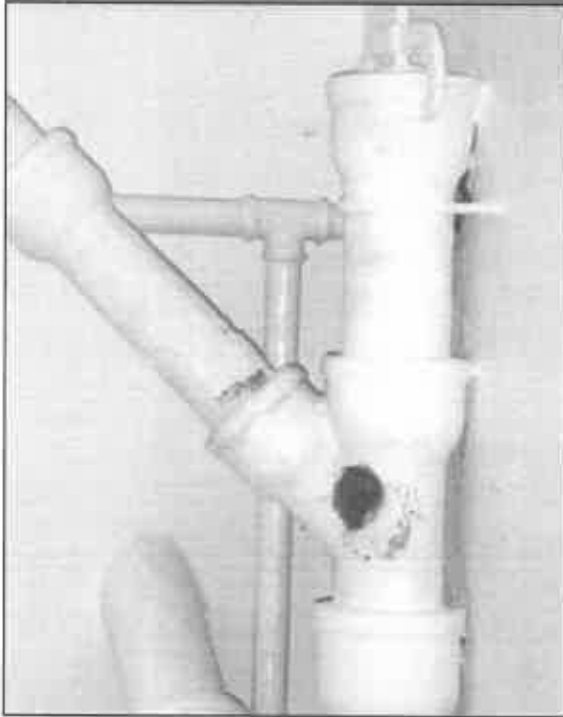
- ◆ Reduce the humidity (see preceding page).
- ◆ Increase ventilation or air movement by opening doors and/or windows, when practical. Use fans as needed.
- ◆ Cover cold surfaces, such as cold water pipes, with insulation.
- ◆ Increase air temperature.

*Mold growing on a wooden headboard in a room with high humidity.*





**Renters:** Report all plumbing leaks and moisture problems immediately to your building owner, manager, or superintendent. In cases where persistent water problems are not addressed, you may want to contact local, state, or federal health or housing authorities.



*Rust is an indicator that condensation occurs on this drainpipe. The pipe should be insulated to prevent condensation.*

**Testing or sampling for mold** Is sampling for mold needed? In most cases, if visible mold growth is present, sampling is unnecessary. Since no EPA or other federal limits have been set for mold or mold spores, sampling cannot be used to check a building's compliance with federal mold standards. Surface sampling may be useful to determine if an area has been

adequately cleaned or remediated. Sampling for mold should be conducted by professionals who have specific experience in designing mold sampling protocols, sampling methods, and interpreting results. Sample analysis should follow analytical methods recommended by the American Industrial Hygiene Association (AIHA), the American Conference of Governmental Industrial Hygienists (ACGIH), or other professional organizations.

# HIDDEN MOLD



*Mold growing on the back side of wallpaper.*

**Suspicion of hidden mold** You may suspect hidden mold if a building smells moldy, but you cannot see the source, or if you know there has been water damage and residents are reporting health problems. Mold may be hidden in places such as the back side of dry wall, wallpaper, or paneling, the top side of ceiling tiles, the underside of carpets and pads, etc. Other possible locations of hidden mold include areas inside walls around pipes (with leaking or condensing pipes), the surface of walls behind furniture (where condensation forms), inside ductwork, and in roof materials above ceiling tiles (due to roof leaks or insufficient insulation).

**Investigating hidden mold problems** Investigating hidden mold problems may be difficult and will require caution when the investigation involves disturbing potential sites of mold growth. For example, removal of wallpaper can lead to a massive release of spores if there is mold growing on the underside of the paper. If you believe that you may have a hidden mold problem, consider hiring an experienced professional.

**Cleanup and Biocides** Biocides are substances that can destroy living organisms. The use of a chemical or biocide that kills organisms such as mold (chlorine bleach, for example) is not recommended as a routine practice during mold cleanup. There may be instances, however, when professional judgment may indicate its use (for example, when immune-compromised individuals are present). In most cases, it is not possible or desirable to sterilize an area; a background level of mold spores will remain - these spores will not grow if the moisture problem has been resolved. If you choose to use disinfectants or biocides, always ventilate the area and exhaust the air to the outdoors. Never mix chlorine bleach solution with other cleaning solutions or detergents that contain ammonia because toxic fumes could be produced.

**Please note:** Dead mold may still cause allergic reactions in some people, so it is not enough to simply kill the mold, it must also be removed.

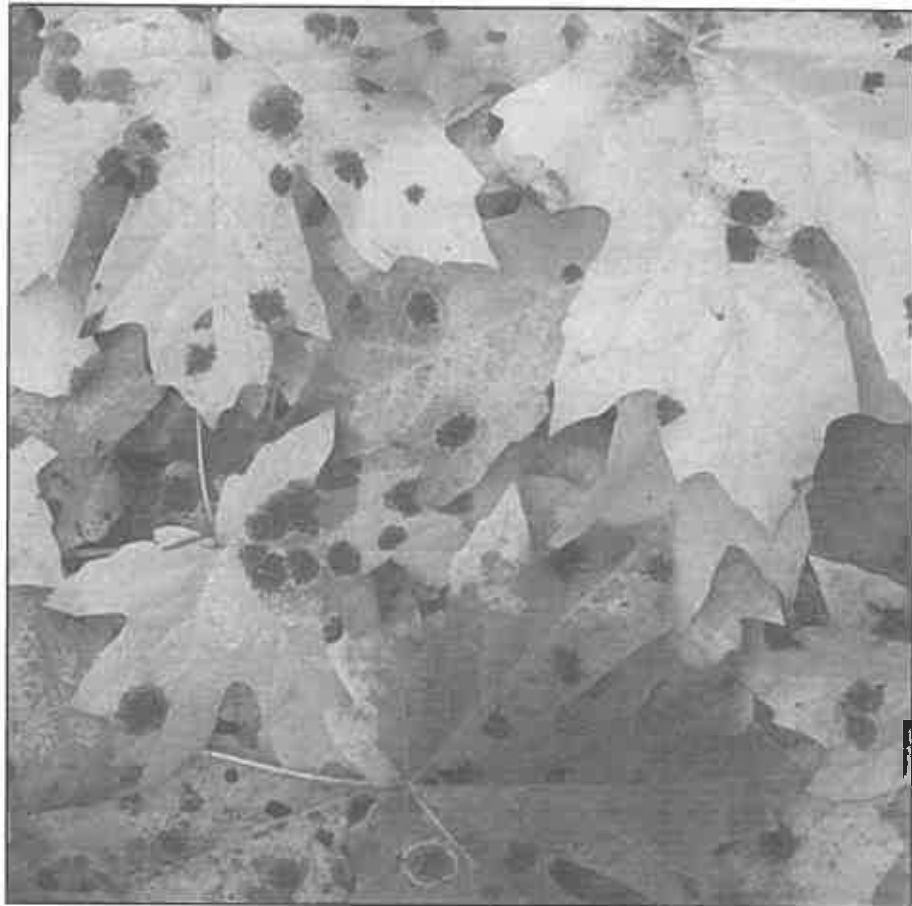
*Water stain on a basement wall — locate and fix the source of the water promptly.*



## ADDITIONAL **RESOURCES**

For more information on mold related issues including mold cleanup and moisture control/condensation/humidity issues, visit:

**[www.epa.gov/mold](http://www.epa.gov/mold)**



*Mold growing on fallen leaves.*

*This document is available on the Environmental Protection Agency, Indoor Environments Division website at: [www.epa.gov/mold](http://www.epa.gov/mold)*

# NOTES

## Acknowledgements

EPA would like to thank Paul Ellringer, PE, CIH, for providing the photo on page 14.

Please note that this document presents recommendations. EPA does not regulate mold or mold spores in indoor air.

