









GMI
MOLD/MOISTURE CONTROL
BUILDING MANAGEMENT PROGRAM

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I. GENERAL INFORMATION

Molds are a normal presence in outdoor and indoor air. When building materials have become moist or water-damaged due to excessive humidity, chronic leaks, condensation, water infiltration or flooding, molds may grow and become apparent as visible discoloration of surfaces or through the detection of "off" odors. Mold spores are very tiny and lightweight, and this allows them to travel through the air. Mold growths can often be seen in the form of discoloration, ranging from white to orange and from green to brown and black.

Prompt attention to moisture/mold is necessary in order to preserve a healthy indoor environment. In addition to damaging the surfaces on which they grow, molds may trigger allergic reactions in susceptible people. Many types of molds exist; some molds produce toxins and/or irritants under certain conditions.

Exposure to mold is not healthy for anyone inside buildings. It is important to quickly identify and correct any moisture sources before health problems develop. The following individuals appear to be at higher risk for adverse health effects:

- Infants and children
- Elderly
- Immune compromised patients (people with HIV infection, cancer chemotherapy, etc.)
- Pregnant women
- Individuals with existing respiratory conditions, such as allergies, multiple chemical sensitivity, and asthma.

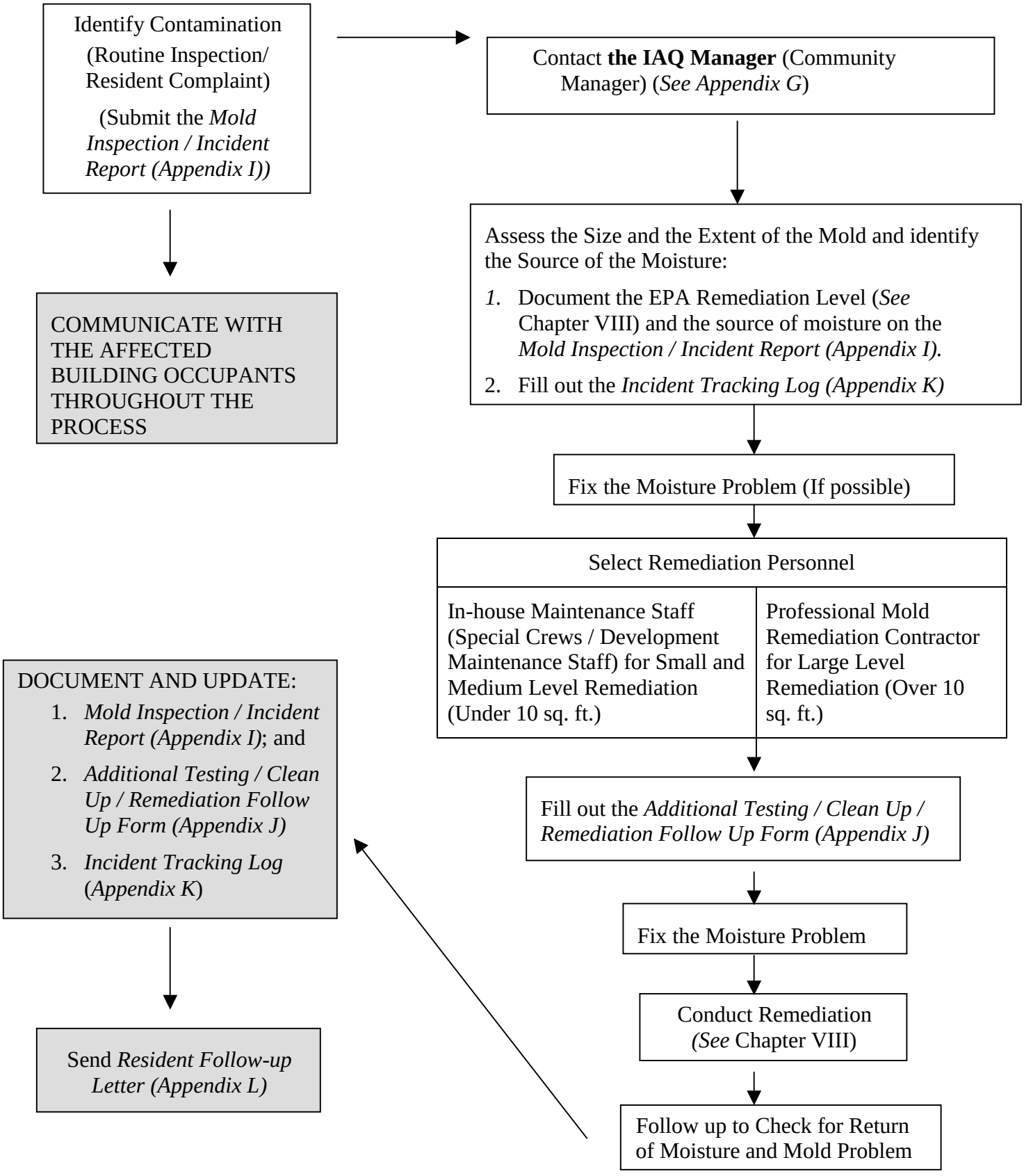
How do you determine if mold is present?

- Odor–Mold has a very recognizable smell. When entering an apartment or previously closed space, mold can most often be recognized by its distinct odor.
- Visual–Mold has a very recognizable visual presence. While there are many types, most are quite obviously mold.
- Testing–According to the EPA it is not necessary to perform air sampling in order to treat mold. However, testing may be considered in very limited circumstances (See Chapter VIII. B).

The purpose of this Program is to assist property owners and managers in establishing procedures for addressing mold. The guidance contained in this Mold/Moisture Control Building Management Program ("Program") is based on the following documents: U.S. Environmental Protection Agency (EPA), Mold Remediation in Schools and Commercial Buildings; CONNOR and NMHC, Mold/Moisture Control Operations & Maintenance Plan; National Apartment Association, Mold Action Kit; American Conference of Governmental Industrial Hygienists (AGCIH), Bioaerosols: Assessment and Control; EPA, I-BEAM Program; and New York City Department of Health (NYCDH), Guidelines on Assessment and Remediation of Fungi in Indoor Environments.

Please read in full the procedures, forms, and related documentation contained in this Program.

INCIDENT RESPONSE FLOWCHART



II. TRAINING

There are no specific training requirements currently mandated by state and federal law for workers who may remediate mold as part of their responsibilities. However, according to EPA, remediation personnel should have experience and training needed to implement the remediation plan and use personal protective equipment and containment as appropriate. On-site staff should therefore receive training necessary to carry out their responsibilities with mold and moisture infiltration considerations in mind. A *Resource Training List* is found in *Appendix A.*

Once staff is properly trained documentation of their training is required. *An Annual Employee Training Checklist* is found at *Appendix B.*

In-house maintenance staff should be trained to:

- Recognize mold or potential sources of moisture infiltration when conducting routine maintenance activities;
- Inspect for mold/moisture infiltration during all service requests and routine maintenance activities;
- Recognize key Indoor Air Quality (IAQ) designated contact in management and how to contact them;
- Be familiar with company-specific policies and procedures contained here within;
- Properly communicate with residents;
- Properly document all remediation efforts;
- Properly address water intrusion/excessive moisture problems; and
- Understand appropriate remediation techniques for water-damaged surfaces.
- Perform Small Remediation (under 10 sq. ft.) in accordance with the EPA Guidelines contained here within.

  Although there are no established Permissible Exposure Levels (PELs) or Threshold Limit Values (TLVs) for mold, as part of the required training under OSHA's Hazard Communication Standard (29CFR 1910.1200), workers must be informed about safe work practices for using various chemicals, including disinfectants, and personal protective equipment, which may be a part of a mold response. Workers who may be involved in cleanup of extensive mold should be supplied with appropriate respirators, which may involve compliance with OSHA's Respiratory Protection Standard (29 CFR 1910.134). Additional information on these regulations is available at www.osha-slc.gov/dts/osta/oshasoft/hazexp.html and http://www.oshaslc.gov/SLTC/ respiratory advisor/mainpage.html respectively.

Management should be properly trained to:

- Understand the background of the mold issue;
- Recognize that mold or moisture complaints must be treated as a priority;
- Be familiar with company-specific policies and procedures contained here within;
- Log all resident complaints;
- Maintain communication to residents;
- Understand how and where to document all maintenance actions and resident communications;
- Understand when to perform maintenance activities in-house and when to hire outside contractors; and
- Be familiar with the appropriate IAQ Manager contact should decisions need to be made beyond their scope of training or responsibility.

III. PREVENTIVE MAINTENANCE

Both routine maintenance and turnover activities provide on-site staff with the opportunity to monitor and correct any conditions involving moisture that could lead to the growth of mold. Treatment of mold should be incorporated into general property management activities. Staff should perform an inspection for mold as part of the unit turnover inspection. Any visual mold growth should be immediately and properly remediated as part of the requirements of the turnover process *(See* Chapter VIII*)***.**

A. Routine Inspections

A visual inspection is the first step in identifying possible moisture damage, which may create conditions favorable for mold growth. To the maximum extent possible, ceiling tiles, gypsum wallboard, cardboard, duct liner, wood, carpet, paper, and other cellulose surfaces should be given careful attention during a visual inspection. Kitchens, bathrooms, windows, and HVAC systems should also be scrutinized.

An earthy or musty odor, may also indicate that mold is present. The use of a moisture meter, to measure the saturation in building materials, is useful in evaluating the extent of water damage and determining when the appropriate moisture level has been restored. Under further investigation, it may be necessary to look inside of wall cavities or filter areas to determine the extent of any water damage or mold growth.

Assessment of all dwelling units should be conducted twice a year. A detailed *GMI Apartment Inspection Record can be accessed through the ADP Portal, Inspection Forms and Logs (Sample: Appendix C attached).* A complete building inspection should be conducted bi-annually. An *Exterior and Common Area Building Inspection Protocol* is found in *Appendix D.* An HVAC inspection of all shall be conducted quarterly during filter changes using the *HVAC Checklist and Filter Change Log* in *Appendix E.* All inspections must be documented. .

Unit Turnover

A detailed unit inspection should be conducted upon turnover. If any observations regarding the presence of conditions that may be favorable to mold growth (i.e., water intrusion, high relative humidity levels, and visible mold) are noted, the property manager should immediately refer and adhere the Documentation Protocols as outlined in Chapter VII.

In addition, upon unit turnover all furnaces rooms should be inspected for the presence of moisture condition, cleaned, and painted. If any moisture conditions are noted, immediately refer and adhere the Documentation Protocols as outlined in Chapter VII.

A list of materials and equipment that are needed to conduct routine and unit turnover assessments for potential moisture infiltration problem and to deal with water intrusion/mold remediation is located in *Appendix F*. If mold growth is observed, proceed to Chapter VIII.

B. Building System Maintenance

1. HVAC

Regular inspections and maintenance of a building's heating, ventilation, and air conditioning (HVAC) is a key component of mold prevention. The *HVAC Checklist and Filter Change Log (Appendix E attached) can be accessed through the ADP Portal, Inspection Forms and Logs*. The HVAC system plays a significant role in controlling moisture within a building. The HVAC system controls moisture through two mechanisms: (1) dehumidification of the indoor air; and (2) by maintaining positive pressure within the structure relative to outdoors, so as to minimize infiltration of moist outside air through the building envelope.

There are four basic ways that HVAC operation may increase airborne mold in buildings:

a. **Inadequate Filtration**- Mold levels are generally higher in the outside air than in the building. Resident exposure to these outdoor sources will increase if the HVAC filtration is inadequate or the building operates with excessive exhaust, which leads to negative pressure in the building.

Solution:

- Use filters to remove particles from the air stream.
- Filters should be replaced on a regularly scheduled basis (quarterly).
- Fans should be shut off when changing the filter to prevent contamination of the air.
- All filters will be dated
- Filters should fit tightly in the filter housing.
- Low efficiency filters (ASHRAE Dust Spot rating of 10%-20%), if loaded to excess, will become deformed and even "blow out", leading to clogged coils, dirty ducts, reduced indoor air quality and greater energy use.
- Higher efficiency filters are often recommended as a cost-effective means of improving IAQ performance while minimizing energy consumption. Filtration efficiency should be matched to equipment capabilities and expected airflows.
- Pleated paper filters, if system is designed for their use, are recommended.
- Maintain proper building pressurization.
- Maintain cleanliness of surfaces around air intakes.

b. **Equipment Sanitation –** Damp surfaces or stagnant water inside the HVAC system can promote local mold growth. Visible mold growth, stagnant water, excessive dust, and musty odors are considered unacceptable.

Solution: Proper design, installation, cleanliness, and maintenance of HVAC equipment are essential. Periodically inspect system and provide equipment maintenance.

c. **Humidity Control** – HVAC systems that allow excessive relative humidity in building areas for extended periods of time may cause mold growth, particularly on colder surfaces. Introduction of more fresh air than the system is capable of conditioning may also promote this problem during hot humid weather. During the heating season, HVAC systems with humidifiers may cause mold growth where they cause excessive dampness.

Solution: Maintain HVAC settings and adhere to operating schedules. HVAC systems with humidifiers must be frequently checked and maintained. Humidifiers need to be properly installed and periodically cleaned and sanitized.

d. **Chilled Water Pipe Surfaces** – Piping that serves the HVAC system can become a source of mold growth when deficient insulation allows sweating (humidity condenses on cold surfaces).

Solution: Properly insulate chilled water pipes (including proper installation of vapor retarders) and attention to the chilled water set point. Where mold growth occurs around such piping, insulation can be treated or replaced, depending on the severity of the damage.

2. Plumbing

All plumbing should be routinely monitored and inspected. When a leaking pipe is suspected immediately shut off the water supply to prevent further damage. Try to anticipate where water damage will occur to keep it to a minimum. Place a waterproof drop cloth and a catch basin on the floor under the leak. If water is leaking from a ceiling light fixture, shut off the electricity and confirm that the electricity is off, then drain the fixture by removing its cover. Poke a hole in the ceiling or remove a section of it to allow any remaining water to drain out. Allow the damaged area to dry thoroughly before restoring electricity to the light fixture.

3. Carpet Cleaning

Carpet that is wet for prolonged periods of time fosters an environment conducive to mold growth. Carpet-cleaning techniques, which may leave carpets too damp and run the risk of creating conditions favorable for mold growth. If cleaning carpets in-house, always follow directions carefully for dilution ratios of the cleaning solution to avoid over wetting the carpet to discourage microbial growth and odor. Ideally, the carpet should be dry within 12–24 hours. Carpet that is allowed to remain wet for more than 12–24 hours may develop mold growth. If the carpet is over saturated, a wet pick-up vacuum may be used to remove excessive moisture. Fans should be used to speed drying time. The heating, ventilation, and air conditioning (HVAC) system should be switched to the "on" position until the carpet is completely dry (*See EPA Table 1 (Appendix H)* for further detail on drying out carpeting.)

C. Repair/Renovation

1. Siding, Windows, Doors

Caulking and Sealing Joints - Clean joint of any old and/or deteriorated sealant and caulk with a high quality sealant of a matching color. It is imperative to properly caulk and secure all open joints no matter how small. By sealing the joints with a high quality elastomeric sealant, water will be prevented from seeping into the building components and causing rotting and deterioration of building components. Paint alone will not seal open gaps between the components. It is imprudent to make carpentry repairs and paint without also sealing all joints. All caulking and sealant applications should use a high quality sealant. An elastomeric sealant should be used in most narrow joint sealing.

When wider gaps are encountered and the application of a sealant is the only alternative, a qualified sealant specialist should be consulted to determine the correct material for the specific condition.

All sealant should be installed according to the manufacturer's instructions.

2. Roofing

Repair all defective areas and seal all openings in joints with a specialized compatible roofing sealant. To ensure proper repair and/or renovation, a professional roofing contractor is recommended.

IV. RESPONSE TO SUDDEN WATER INTRUSION

A. Property Manager Protocols Following Severe Rain Storms, Flooding, or Sudden Water Intrusion

1. If severe rainstorm or flooding, the Maintenance Supervisor (or if off-hours, the maintenance personnel on staff) should fully assess each building using the *Exterior and Common Area Building Inspection Protocol (Appendix D).*

2. If sudden water intrusion (e.g., burst pipe) fully assess the water damaged area.

3. If flooding is noted or porous building materials are found wet, dry immediately. Consult *EPA Table 1 (Appendix H).*

4. Report damage to the Property Manager.

5. Property manager should report deficiencies to **the IAQ Manager** (Community Manager) (*See Appendix G*).

6. **The IAQ Manager** should request additional outside assistance, if necessary *(See Sections B and C below).*

B. Response to Water Intrusion

1. **Gray and Black Water Concerns:** Flooding presents a unique set of circumstances and by default must be treated differently from other intrusions. Floodwater is typically regarded as black water due to the potential for contaminants and biohazards that might be present. If the damage is by anything other than clean water (potable water), special precautions must be taken. If you know or suspect that the water source is contaminated with sewage, or chemical or biological pollutants, then OSHA requires Personal Protective Equipment and containment. Workers entering the contaminated area must wear protective clothing and respirators. In sewage situations, pathogenic bacteria and viruses must be dealt with by evacuation of occupants until clean up and disinfection has been completed. An experienced professional should be consulted if you and/or your remediator do not have expertise in remediating contaminated water situations. Do not use fans before determining that the water is clean or sanitary. If a particular item(s) has high monetary or sentimental value, you may wish to consult a restoration/ water damage specialist.

2. **Clean Water:** The most significant event that leads to building-wide water damage and, subsequently, environmental hazards associated with extensive microbiological contamination, is a sudden water intrusion event (e.g., heavy rain or a broken water line). Fortunately, proper techniques following an event can eliminate or significantly reduce microbial damage. Prompt response to a water intrusion situation, before it becomes microbiological contamination is necessary.

- Repair any leaks and penetrations as soon as reported. Remove resultant water and dry carpets. Inspect drywall, insulation and ceiling for damage. Typically, drywall can be dried if the seams remain intact. If the insulation has become saturated, it should be removed along with the saturated drywall. Remember that drywall can act as a wick, drawing moisture out and away from the original point of penetration.

- Clean and dry any wet and damp interior spots within 24 to 48 hours. Allowing water or even moisture to stand in place for longer than 48 hours dramatically increases the risk of mold growth.

- Provide proper drainage and slope for any areas where ponding occurs immediately adjacent to the building and foundation.

- Typically soft goods are not salvageable when damaged by floodwaters. This means removal and disposal of carpet and pad.

- As with other types of penetration, cove molding should be removed.

- Drill weep holes at base of drywall.

- Employ the use of drying equipment including fans and dehumidifiers.

- Remove kick plates under cabinets and drill weep holes.

- Remove contaminated or porous contaminated material and discard. Use caution while performing removal. Bag and seal before removing from contaminated area.

C. Hiring Third Party Restoration/Remediation Firms

Rapid response is critical. A restoration or remediation company should be on site within 8 hours of a flooding episode. The restoration company must also have the proper equipment to perform the task quickly and efficiently, including water extraction and dehumidification equipment (*See Appendix F*). At a minimum the restoration company should:

- Remove carpet and pad;

- Remove cove moldings or other moldings if water has entered wall cavity;

- Drill holes in wallboard to facilitate drying inside wall cavity;

- Pay special attention to built-in cabinets, remove kick plates or drill holes; and

- Have special equipment for remediation of microbiological contamination, if necessary.

An *Equipment List* is found in *Appendix F*.

If clean up and drying is not accomplished expeditiously, microbiological contamination is a concern. Clean water floods that are not dried out rapidly will require extensive demolition and removal of porous materials. Every situation is unique, but as a general rule, microbial remediation personnel should:

- Equip remediation workers with protective equipment;
- Contain the area in need of remediation;
- Exercise extreme care when removing contaminated materials and bag them before removing them from the contaminated area;
- Remove contaminated or porous organic materials and discard (e.g., drywall, ceiling material, insulation, flooring, carpet, pad, sub floor material, and cabinets with particle board bases);
- Remove spores and other fungal particulates from the air and from surfaces using high efficiency particulate air (HEPA) filters and vacuums;
- Use negative air containment to protect other parts of the structure during demolition; and
- Use HEPA filters to clear the air after demolition.

V. COMMUNICATIONS WITH CONTRACTORS

A. Contractor/Vendor Communications with Residents

VENDOR COMMUNICATION GUIDELINES

This communication is intended to give guidance for Indoor Air Quality (IAQ) Professionals and Vendors in general when they come in contact with moisture or mold related issues.

When we have an apartment with a moisture problem and potential mold infestation it is important that the residents of the affected apartment(s) receive their notification, and information from the property management office. The guidelines listed below will help alleviate any misinformation or resident misunderstandings.

1. Communications with residents must be kept to a minimum and should be limited to access issues.
2. Any problems with residents should immediately be reported to the property manager or service manager (i.e. – refusal or limitations on access).
3. No discussion with the resident of likely findings, scopes of work or costs of services should be held with the resident or in their presence.
4. No discussion of testing methods, materials, equipment or related topics should be held with the residents.
5. No promises should be made to the resident to provide copies of reports of findings.
6. Residents should simply be told that they should discuss the issues with the property manager.
7. Any breach of these guidelines will be considered a breach of the services contract and may lead to legal action against the provider of services.

We appreciate your help in this matter.

B. Selection of Contractors

Environmental Professionals and Contractors should be chosen prior to the occurrence of moisture intrusion or mold event. A *Contact List*, which provides a list of contacts and vendors who offer services not readily available onsite is found in *Appendix G*.

VI. DOCUMENTATION PROTOCOL

A. Guidelines for Processing a Maintenance Service Request

Use the following guidelines to document reported conditions that may be favorable to mold growth or alleged mold growth reported or observed at a community.

When possible, every step of these guidelines should be completed.

At the Office

1. Fill out the *Mold Inspection/Incident Report (Appendix I)* and in doing so record the observations of the resident regarding the presence of conditions that may be favorable to mold growth, or whether the resident believes mold growth is present. If a health concern is expressed or property damage is reported, immediately contact **the IAQ Manager** (Community Manager) (*See Appendix G*) and submit the Report.

2. If a letter of legal representation is received from an attorney on behalf of a resident or group of residents that makes mention of a mold issue, if a letter is received from a local, state or federal regulatory agency, or if resident has had the mold tested immediately contact **the IAQ Manager**, report the incident, and provide copies of any correspondence or reports.

3. Treat the service request as a priority.

4. Log all complaints in the *Incident Tracking Log (Appendix K).* Clearly and concisely, state the conditions reported by the resident, and maintain the Log in the management office.

At the Service Location

**See Visual Assessment Procedures, Chapter VIII. A for detailed inspection procedures.

5. Determine the nature and extent of conditions favorable for mold growth, or mold, if any. Determine the source of any water infiltration or excessive moisture, interior and exterior.

6. If maintenance personnel cannot locate the source of the moisture, contact **the IAQ Manager** (Community Manager) (*See Appendix G*).

7. If a source of water or excessive moisture is found: Stop the leak or cause of excessive moisture and dry all affected areas completely immediately, or within 12-24 hours of notification. Consult the procedures for drying out surfaces found in *EPA Table 1 (Appendix H).*

8. If mold is detected: Fill out the *Additional Testing / Cleanup / Remediation Follow up Form (Appendix J)* and clean up the mold following the procedures outlined in Chapter VIII. C.

Back at the Office

9. If no mold was found: Send Resident *Follow-up Letter (Appendix L)* indicating results of investigation.

10. Use the *Additional Testing / Cleanup / Remediation Follow up Form (Appendix J)* and/or *Resident Follow-up Letter (Appendix L)* to inform the resident of the corrective action completed and additional steps to be taken, if any. Keep a copy of that correspondence in the resident's file. The presence of mold on shower curtains, personal items, bathtubs, or other surfaces that are the result of negligent housekeeping shall be addressed as follows: (1) notify the resident in writing of the problem; (2) provide a copy of *Appendix N;* and (3) request their cooperation in removing the mold through cleaning or by replacing the item.

11. If temporary or permanent relocation of resident is deemed necessary, the decision shall be made with the approval of **the IAQ Manager** (Community Manager) (*See Appendix G*). Relocations to another on-site unit, either temporary or permanent, must include a visual inspection for mold in the unit where the resident(s) are being moved to prior to their move.

12. Complete the *Incident Tracking Log (Appendix K)* to reflect what action was taken.

13. **The IAQ Manager** is responsible for managing the incident to closure. The goal is to close all incidents in less than 30 days.

Within 7–10 Days

14. Send a *Resident Follow-up Letter (Appendix L).* Provide the resident with a copy of *Appendix N*.

15. Log the follow-up action on the *Incident Tracking Log (Appendix K).*

VII. RESIDENT EDUCATION AND RESPONSIBILITY

All information provided to residents must be documented. A *Resident Information Checklist (Appendix M)* is provided.

A. Lease Provision

Concern about mold in both the residential and occupational setting is escalating. While there are many unanswered questions about potential health effects of mold, it is prudent for property owners/managers to (1) repair any known conditions involving excessive moisture that could lead to a mold problem and (2) clean and remove any mold growth when it occurs. In order to accomplish this objective, it is important to establish a partnership between the property's management staff and residents so that conditions that require attention are identified and dealt with promptly. Some companies have begun to include specific lease language that informs residents of their obligation to prevent mold through routine housekeeping and to report the presence of excessive moisture/mold in their apartment home to the management staff.

The Mold Addendum must be included in all new lease renewals. Each resident must sign the lease addendum.

B. Information to Provide Upon Signing of Lease

As part of their move-in package, residents should be provided educational information about mold and how to prevent mold growth in their apartment home. A document, titled *Tip Sheet on Mold* is found in *Appendix N*. Alternately, you may wish to use the U.S. Environmental Protection Agency pamphlet: A Brief Guide to Mold, Moisture, and Your Home (http://www.epa.gov/iaq/molds).

The printed pamphlet version of this EPA guide [EPA Publication #402-K-02-003] is available from:

- IAQ INFO
  P.O. Box 37133, Washington, DC 20013-7133
  1-800-438-4318/703-
  356-4020 (fax) 703-
  356-5386
  iaqinfo@aol.com
- U.S. Environmental Protection Agency
  National Center for Environmental Publications (NSCEP) P.O. Box 42419
  Cincinnati, OH 42419
  1-800-490-9198/(513) 489-8695 (fax)

VIII. MOLD ASSESSMENT AND REMEDIATION

A. Visual Assessment Procedures

**See Documentation Protocol, Chapter VI, for the documentation procedures that go along with the visual assessment.

A visual inspection is the most important initial step in identifying a possible mold problem.

1. A complete visual inspection of the unit shall be performed. *The GMI Apartment Inspection Record can be accessed through the ADP Portal, Inspection Forms and Logs (Sample: Appendix C attached).* The extent of any water damage and mold growth should be estimated as accurately as possible (in square feet), as this will determine the EPA Remediation Level and thus the specifics of remediation.

   - Use a checklist that delineates all areas that should be inspected during a visual inspection (*See Appendices C and D*).
   - Thoroughly investigate all areas associated with resident complaints.
   - Locate all sources of moisture that allowed the mold growth (roof or plumbing leaks, condensation, slab leaks, drain pans, humidity, etc.).

     Note: If on-site staff is unable to identify the source of the moisture problem, it may be necessary to hire an IAQ Professional. Contact **the IAQ Manager** (Community Manager) (*See Appendix G*) for direction and approval.
   - Inspect ventilation systems particularly for damp filters, mold growth in the AC closet, mold on the coils, mold in the ductwork or on the vent registers inside air ducts and the air handling units, and check areas with typically high humidity such as bathrooms and kitchens.
   - Assess the approximate size of any visible mold growth areas (in square feet) and check for the possibility of any hidden mold growth (foul or musty odors may be an indication of hidden growth).
   - Inspect under cabinets and behind appliances.
   - Determine if mold-damaged materials are porous (drywall, wood, insulation, concrete etc.) or non-porous (glass, metals, laminates, glazed ceramic tile, etc.)?
   - Check condition of exhaust fans in bathrooms and kitchens and their vents. Confirm that they are functioning property and are vented to the outside of the structure. Confirm also that clothes dryers are vented to the outside of the structure.

2. 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 mold and the extent of water damage. These devices are available from flood restoration contractors or health & safety supply companies.

3. If the Property Manager determines it is necessary to use a third-party inspector, contact **the IAQ Manager** (*See Appendix G*).

B. Bulk or Air Sampling of Mold

According to the EPA, "In most cases, if visible mold growth is present, sampling is unnecessary. Sampling should be done only after developing a sampling plan that includes a confirmable theory regarding suspected mold sources and routes of exposure. Figure out what you think is happening and how to prove or disprove it before you sample!" Bulk or Air sampling need not be part of a routine inspection or remediation. According to various governmental agencies, including the EPA, when the size of the affected area is small or moderate, decisions about appropriate remediation strategies can be made on the basis of a visual inspection.

However, it may be prudent to sample if:

- an individual has been diagnosed with a disease that may be associated with a fungal exposure and there is evidence from a visual inspection that the ventilation system may be contaminated
- litigation is involved and the opposing party has conducted sampling
- the presence of mold is suspected (e.g., musty odor) but cannot be identified by a visual inspection. The purpose of such air sampling is to attempt to determine the location and/or extent of the mold.
- following a remediation to verify the area is "clean"

If bulk or air sampling is conducted, personnel conducting the sampling must be trained in proper sampling methods, preferably a Certified Industrial Hygienist. **All bulk or air sampling is to proceed only upon the approval of the IAQ Manager** (Community Manager) (*See Appendix G*).

Analysis of Environmental Samples

The analysis of air or bulk sampling shall be performed only by laboratories that are accredited by the American Industrial Hygiene Association's (AIHA) Environmental Microbiological Laboratory Accreditation Program (EMLAP).

C. Remediation

As of October 2005, there are no state or federal regulations or laws specifically addressing remediation. However, the EPA Guidance, "Mold Remediation in Schools and Commercial Buildings" currently represent the industry standard of care. According to the EPA, cleanup varies depending on the level of contamination. Areas are described as Small (an area less than 10 square feet), Medium (Total surface area between 10 and 100 feet) and Large (Total surface area of over 100 square feet). (Refer to *EPA Table 2*, in this section to help determine the proper remediation procedures.)

Small areas (total surface area under 10 sq. ft.) can be cleaned in-house by GMI employees. An outside professional will handle Medium areas (under 100 sq. ft.) and Large areas (over 100 sq. ft.). Contact **the IAQ Manager** (Community Manager) (*See Appendix G*) if further assistance is necessary.

1. Planning

Per the EPA Guideline "Mold Remediation in Schools and Commercial Buildings" other questions should be asked before a full remediation plan is implemented:

a) Are there existing problems in the building?

b) Has the area been wet for more than 48 hours?

c) Are there hidden sources of water or is the humidity too high (high enough to cause condensation)?

d) Are residents reporting musty or moldy odors?

e) Are residents reporting health symptoms?

f) Are resident's furnishings visibly damaged?

g) Has maintenance been delayed or deferred or has the maintenance plan been altered?

h) Had the building recently been remodeled or changed?

i) Is consultation with a medical or health professional indicated?

2. Performing the Remediation

a) If, based on the *Mold Inspection/Incident Form (Appendix I)*, the Property Manager determines it is necessary to use a third-party remediator, contact **the IAQ Manager** (Community Manager) (*See Appendix G*).

b) The underlying cause of moisture intrusion shall be identified and repaired.

c) Clean up shall be performed when the affected area is unoccupied and within 48 hours of notification, if technically feasible.

d) Consult *EPA Table 2 (below)* – Remediating Building Materials with Mold Growth, for guidance.

e) Abide by the following guidelines when remediating Small and Medium Level incidents:

- Employees shall adhere to OSHA's Respiratory Protection and Communication Standards, when applicable.
- Wear rubber or vinyl gloves when handling moldy materials.
- Wear appropriate clothing and shoes, including eye protection; during clean up of the area.
- Turn off all HVAC equipment.
- Exercise caution around any electrical equipment or fixtures.
- Do not use fans for drying wet materials until surface mold has been removed.
- Read and follow the instructions and safety data sheets (MSDS) of all chemicals used.

- Wipe all surfaces with a non-ammonia soap or detergent in hot water to remove all loose mold.
- Use a stiff brush or cleaning pad on all uneven surfaces with detergent.
- At completion, rinse all surfaces clean with water. Use a wet/dry vacuum if necessary.
- Never mix ammonia with bleach.
- Let dry overnight.
- Remove and discard all porous or cellulose materials (e.g., wallboard) that appear to have mold on them. Contaminated absorbent material should be sealed in plastic sheets. Tape the plastic sheets closed before removing from the area.
- HEPA vacuum clean the entire work area at completion. (HEPA vacuums are available at The Home Depot or similar hardware/home center type stores). You may also be able to buy HEPA filters for an existing vacuum.
- Wipe clean or damp mop all surfaces in the work area at completion of the cleaning and removal process.
- Wash hands thoroughly and HEPA vacuum all clothes during any break and at completion of the clean-up project.

Should you have any questions, contact **the IAQ Manager** (Community Manager) (*See Appendix G*).

Table 2 – Guidelines for Remediating Building Materials with Mold Growth Caused by Clean Water (as prepared by the EPA)			
Material or Furnishing Affected	**Cleanup Method** (See Section E. below)	**Personal Protective Equipment** (See Section F. below)	**Containment** (See Section G. below)
Small – Total Surface Area Affected Less Than 10 Square Feet (ft^2)			
Books and Papers	3	**Minimum** N-95 Respirator, gloves & goggles	**None Required**
Carpets and Backing	1,3		
Concrete or Cinder Block	1,3		
Hard Surface, Porous Flooring (linoleum, ceramic tile, vinyl	1,2,3		
Non-Porous, Hard Surface (Plastics, metals)	1,2,3		
Upholstered Furniture & Drapes	1,3		
Wallboard (drywall & gypsum board)	3		
Wood Surfaces	1,2,3		
Medium – Total Surface Area Affected Between 10 and 100 Square Feet (ft^2)			
Books and Papers	3	**Limited or Full** Use professional judgment, consider potential for remediator exposure and size of contaminated area	**Limited** Use professional judgment. Consider potential for worker/occupant exposure and size of contaminated area
Carpets and Backing	1,3,4		
Concrete or Cinder Block	1,3		
Hard Surface, Porous Flooring (linoleum, ceramic tile, vinyl	1,2,3		
Non-Porous, Hard Surface (Plastics, metals)	1,2,3		
Upholstered Furniture & Drapes	1,3,4		
Wallboard (drywall & gypsum board)	3,4		
Wood Surfaces	1,2,3		
Large – Total Surface Area Affected Greater than 100 Square Feet (ft^2) or Potential for Increased Occupant or Remediator Exposure During Remediation Estimated to be Significant			
Because Large Surface Areas will be handled by professionals, these guidelines have been omitted.			

E. Clean Up Methods

Varieties of mold cleanup methods are available for remediating damage to building materials and furnishings caused by moisture control problems and mold growth. The specific method or group of methods used will depend on the type of material affected, as presented in Table 2. Please note that professional remediators may use some methods not covered in these guidelines; absence of a method in the guidelines does not necessarily mean that it is not useful.

- **Method 1: Wet Vacuum**
  Wet vacuums are vacuum cleaners designed to collect water. They can be used to remove water from floors, carpets, and hard surfaces where water has accumulated. They should not be used to vacuum porous materials, such as gypsum board. They should be used only when materials are still wet – wet vacuums may spread spores if sufficient liquid is not present. The tanks, hoses, and attachments of these vacuums should be thoroughly cleaned, disinfected, and dried after use because mold and mold spores may stick to the surfaces.

- **Method 2: Damp Wipe**
  Whether dead or alive, mold can be allergenic. Mold can generally be removed from nonporous (hard) surfaces by wiping or scrubbing with water, or water and detergent. It is important to dry these surfaces quickly and thoroughly to discourage further mold growth. Instructions for cleaning surfaces, as listed on product labels, should always be read and followed. Porous materials that are wet and have mold growing on them may have to be discarded. Because molds will infiltrate porous substances and grow on or fill in empty spaces or crevices, the mold can be difficult or impossible to remove completely.

- **Method 3: HEPA Vacuum**
  HEPA (High-Efficiency Particulate Air) vacuums are recommended for final cleanup of remediation areas after materials have been thoroughly dried and contaminated materials removed. HEPA vacuums are also recommended for cleanup of dust that may have settled on surfaces outside the remediation area. Care must be taken to assure that the filter is properly seated in the vacuum so that all the air must pass through the filter. When changing the vacuum filter, remediators should wear PPE (see below) to prevent exposure to the mold that has been captured. The filter and contents of the HEPA vacuum must be disposed of in sealed plastic bags.

- **Method 4: Discard**
  Building materials and furnishings that are contaminated with mold growth and are not salvageable should be double-bagged using 6-mil polyethylene sheeting. These materials can then usually be discarded as ordinary construction waste. It is important to package mold-contaminated materials in sealed bags before removal from the containment area to minimize the dispersion of mold spores throughout the building. Large items that have heavy mold growth should be covered with polyethylene sheeting and sealed with duct tape before they are removed from the containment area.

F. Personal Protective Equipment (PPE)

If the remediation job disturbs mold and mold spores become airborne, then the risk of respiratory exposure goes up. Actions that are likely to stir up mold include: breakup of moldy porous materials such as wallboard; invasive procedures used to examine or remediate mold growth in a wall cavity; actively stripping or peeling wallpaper; and using fans to dry items.

The primary function of Personal Protective Equipment (PPE) is to avoid inhaling mold and mold spores and to avoid mold contact with the skin or eyes. The following sections discuss the different types of PPE that can be used during remediation activities. Please note that all individuals using certain PPE equipment, such as half-face or full-face respirators, must be trained, must have medical clearance, and must be fit tested by a trained professional. In addition, the use of respirators must follow a complete respiratory protection program as specified by the Occupational Safety and Health Administration.

- **Minimum:** When cleaning up a small area affected by mold, you should use an N-95 disposable respirator. This device covers the nose and mouth, and will filter out 95% of the particles in the air, and is available in most hardware stores. Gloves and goggles/eye protection should also be worn.

- **Limited:** Limited PPE includes use of an N-95 respirator or a half-face respirator equipped with a HEPA filter cartridge. These respirators contain both inhalation and exhalation valves that filter the air and ensure that it is free of mold particles. Note that half-face APRs do not provide eye protection. In addition, the HEPA filters do not remove vapors or gases. You should always use respirators approved by the National Institute for Occupational Safety and Health. Gloves, disposable overalls, and goggles/eye protection should also be worn.

- **Full:** Gloves, disposable full body clothing, headgear, foot coverings, full-face respirator with HEPA filter should be worn.

- **Skin and Eye Protection**
  Gloves are required to protect the skin from contact with mold allergens (and in some cases mold toxins) and from potentially irritating cleaning solutions. Long gloves that extend to the middle of the forearm are recommended. The glove material should be selected based on the type of materials being handled. If you are using a biocide (such as chlorine bleach) or a strong cleaning solution, you should select gloves made from natural rubber, neoprene, nitrile, polyurethane, or PVC. If you are using a mild detergent or plain water, ordinary household rubber gloves may be used. To protect your eyes, use properly fitted goggles or a full-face respirator with HEPA filter. Goggles must be designed to prevent the entry of dust and small particles. Safety glasses or goggles with open vent holes are not acceptable.

- **Respirator Protection** - Respirators protect cleanup workers from inhaling airborne mold, mold spores, and dust.

G. Containment

The purpose of containment during remediation activities is to limit release of mold into the air and surroundings, in order to minimize the exposure of remediators and building occupants to mold. Mold and moldy debris should not be allowed to spread to areas in the building beyond the contaminated site.

The type of containment recommended in Table 2 for a Medium Level is limited. As the area of moldy material becomes larger, we face a greater possibility of human exposure and a greater need for containment. In general, the size of the area helps determine the level of containment. However, a heavy growth of mold in a relatively small area could release more spores than a lighter growth of mold in a relatively large area. Choice of containment should be based on professional judgment. The primary object of containment should be to prevent occupant and remediator exposure to mold.

- **Limited:** Use polyethylene sheeting ceiling to floor around affected area with a slit entry and covering flap; maintain area under negative pressure with HEPA filtered fan unit. Block supply and return air vents within containment area.

H. How do you know when a remediation/clean-up is complete?

According to the EPA, remediation has been completed if:

- The water or moisture problem has been fixed completely;
- The mold has been completely removed. Professional judgment and common sense should be used to determine if the clean-up is sufficient. Visible mold, mold-damaged materials, and moldy odors should not be present;
- The kinds and concentrations of mold and mold spores in the building are similar to those found outside, once clean-up activities have been completed;
- Upon revisiting the sites where mold contamination was present, shortly after remediation, no signs of water damage or mold growth are present; and
- People occupy or re-occupy the space without health complaints or physical symptoms.

Ultimately, according to EPA, this is a judgment call; there are no easy answers.

APPENDIX A

RESOURCES FOR TRAINING

Management is responsible for ensuring that on-site maintenance and management staff has the knowledge and tools necessary to deal with mold and moisture problems, although some training sources are identified below, these are not represented to be comprehensive or fully adequate; management must determine what level of information is necessary to provide workers with sufficient knowledge. All training must be documented (See *Annual Employee Training Checklist (Appendix B)*).

Background Reading

For the majority of staff training, the most cost-effective training method is having staff read applicable guidance documents, such as the following:

- EPA's guidance, Mold Remediation in Schools and Commercial Buildings, which can be found at http://www.epa.gov/iaq/molds/images/moldremediation.pdf or by calling the Indoor Air Quality Information Clearinghouse at 800.438.4318.

- The New York City Department of Health & Mental Hygiene's Guidelines on Assessment and Remediation of Fungi in Indoor Environments, which can be found at http://www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html or by calling 212.788.4290.

Training Videos

For a moderate initial cost, staff can also view training videos such as the Mold Operations and Maintenance Training Program for Multifamily Housing Professionals, from the National Apartment Association and the National Multi Housing Council. This 35-minute video can be ordered online at http://www.naahq.org/Eduction/moldflyer.PDF or by phone at 703.518.6141.

Intensive Training Courses

If formal courses are desired, there are many potential options available. Training courses vary greatly in cost, location, and length.

CONNOR Environmental Services provides Mold Training and may therefore be an option:

- **Mold/Moisture Control Building Management Program Course: 4 hour (Web-Based training or Onsite)**

  Course Description: Clearly, a Company's Mold/Moisture Control Building Management Program (BMP) is only as successful as its implementation. Once a Company-specific BMP is complete, the course provides all Property Management/Owner personnel training on the details and requirements of their company-specific BMP. In addition, by offering training services via the web, it allows all personnel to log on to the web for the training session, thereby offering training to all level of employees without the time and expense of traveling offsite. The training session is interactive enabling the participants to ask questions as well as allowing the instructor to pose questions to the participants.

- **Moisture Infiltration / Mold Prevention & Remediation Course: 2 days (Onsite only)**

  Course Description: This course is geared towards maintenance personnel. The course provides a background on appropriate Operation & Maintenance procedures, which should be implemented to prevent mold problems, as well as a brief synopsis on the biology and health effects of mold. The program also covers how to spot mold, appropriate communications with residents, and a review of current guidance, which currently represent the highest standard of care available in the industry today. The course will commence with 1 day of hands-on-training, in which the attendees will learn proper remediation procedures for smaller remediation projects (up to 30 square feet), including containment, personal protection procedures, proper remediation techniques, and cleanup thereby enabling onsite personnel to perform smaller level remediation projects in accordance with the current industry standard of care.

APPENDIX B

ANNUAL EMPLOYEE TRAINING CHECKLIST

Employee Name	Reviewed Resident Tip Sheet (date)	Received Training on Visual and Olfactory Moisture and Mold Inspections (date)	Received Training on EPA Guidance for Water Cleanup and Mold Remediation (date)	Received Other Training: Specify (date)

Appendix C
Grady Management Inc.
Apartment Inspection Record

«sitename»

«unitaddressline1», «buildingunitnumber», «unitaddresscity», «unitaddressstate» «unitaddresszipcode»

1 Bdrm, _____ 2 Bdrm, _____ 3 Bdrm, _____ Other

_____ _____Move in inspection, _____ T/O Inspection,

_____ New Construction, _____ Annual inspection

Inspected By: _____ Date: _____

Note any signs of current or past signs of moisture.

Check boxes for **Clean** (areas are clean, equipment is properly functioning, no work required) or list deficiencies and repairs needed. File completed checklist in unit file.

		Living Room		Dining Room		Den/Family Room
Floors /Sub-Floors						
Walls						
Entrance Door						
Electrical						
Ven. Blinds						
Windows						
Doors						
Other						

Comments_____

		Kitchen			Hall
Floors /Sub-Floors			Floors /Sub-Floors		
Walls			Walls		
Kitchen Cabinets			Electrical		
Counter Top			Closet		
Disposal			Other		
Sink					Stairway
Range			Treads		
Refrig/clean coil			Risers		
Fan/filter			Rail		
Electrical			Walls		
Other			Other		

Comments_____

		Bath 1		Bath 2		Bath 3
Floors /Sub-Floors						
Walls						
Electrical						
Fan						
Tub						
Lavatory						
Medicine Cabinet						
Tile						
Toilet						
Toilet tank/water level						
Check Flappers/Dye test						
Other						

Comments_____

Note any signs of current or past signs of moisture.

Check boxes for **Clean** (areas are clean, equipment is properly functioning, no work required) or list deficiencies and repairs needed. File completed checklist in unit file.

		Bedroom 1		Bedroom 2		Bedroom 3
Floors /Sub-Floors						
Walls						
Electrical						
Blinds						
Windows						
Bedroom Door						
Closet Door						
Closet						
Other						

Comments_____

		Furnace Room/Utility Closet			Locks
Furnace/Air handler/indoor coil			Balcony/Patio		
Air Conditioner/outdoor coil			Apt. Ent. Lock		
Ducts /supply air			Mail Box Lock		
Electrical			Bldg. Ent. Lock		
Door					
Condensate Pan/Line					
Filter/date of last change					
Walls/Ceiling/Floor					

Comments_____

		Balcony or Patio			Misc.
Door			Other		
Screen Door			Water Heater		
Windows			Smoke Alarm/CO Alarm		
Caulking			Stove Top Fire Stops		
Floor			Fuse/Breaker Panel		
Railing			Storage Closet		
Satellite Dish			Laundry Closet		
			Fire Stops		

Comments_____

APPENDIX D

EXTERIOR AND COMMON AREA BUILDING INSPECTION PROTOCOL

Begin the walkthrough inspection outside. Considerations include ventilation inlets, site drainage, and holes in the building shell. Use the checklist to guide your inspection, and note any relevant observations on this sheet.

Building # _____

EXTERIOR	**LOCATION/OBSERVATION**
• No moisture penetration or signs of mold on building exterior?	
• Ventilation units on and air flowing into outdoor air intakes?	
• Outdoor air intakes free from blockage or obstruction (boards, leaves, vegetation, snow, etc.)?	
• No bird or animal nests or droppings near outdoor air intakes?	
• Roof downspouts and scuppers drain water away from the building?	
• Rain gutters and downspouts properly connected?	
• Good site drainage away from building?	
• No holes in building exterior?	
• Sprinklers do not water excessively near building, or over-spray onto building or into outdoor air intakes, etc.?	
• Excessive shrubbery or mulch around building?	
• Doors and Windows: Caulking and weather stripping in good condition?	

ROOF	**LOCATION/OBSERVATION**
• Roof in good repair?	
• Ventilation units on and air flowing into outdoor air intakes? (See HVAC Checklist below for more information.)	
• Outdoor air intakes open, even at the minimum setting? (See HVAC Checklist below for more information.)	
• Bird or animal nests or droppings near outdoor air intakes?	
• Plumbing stacks ten feet away from outdoor air intakes?	
• Any exhaust air outlets within 10 feet of outdoor air intakes?	
• Free fall drainage system operating properly?	

COMMON HALLWAYS AND STAIRWELLS **LOCATION/OBSERVATION**

- Evidence of moisture infiltration or mold growth?
- Evidence of water staining?
- Dry, clean, no odors?

LAUNDRY FACILITIES **LOCATION/OBSERVATION**

- Evidence of moisture infiltration or mold growth?
- Evidence of water straining?
- Leaky pipes?
- Are dryers properly venting to the outside?

OTHER **LOCATION/OBSERVATION**

- Central Utility Room- Evidence of moisture infiltration, mold growth, or elevated humidity levels?
- Management/Leasing Office - Evidence of moisture infiltration, mold growth, or elevated humidity levels?
- Maintenance Shop - Evidence of moisture infiltration, mold growth, or elevated humidity levels?
- Maintenance Storage Areas - Evidence of moisture infiltration, mold growth, or elevated humidity levels?
- Poolhouse - Evidence of moisture infiltration, mold growth, or elevated humidity levels?
- Other _____

APPENDIX E
HVAC CHECKLIST AND FILTER LOG

Check boxes for clean (areas are clean, equipment is properly functioning, no work required)

Building	Unit	Date Filter Changed	Inspected by	Supply air, plenums &ductwork	Indoor coil, Condensate pans & lines	Check ceilings, walls and floor for dirt and moisture issues	Comments

APPENDIX F

EQUIPMENT LIST

The following equipment is available at most supply stores and is useful to have on site to deal with water intrusion and/or mold remediation.

1) Moisture meter
2) High efficiency particulate air (HEPA) filtered vacuum cleaner
3) Disinfectant or bleach and standard cleaning detergent
4) Wet vacuum
5) Blowers (have on site or know where to rent)
6) Dehumidifiers (have on site or know where to rent)
7) Water extraction vacuum (have on site or know where to rent)
8) Localized containment bag (2-glove bags)
9) Disposable clothing (1 box)
10) N-95 Disposable Respirators (5 pack)
11) 6-mil disposable bags (1 box)
12) 6-mil Polyethylene sheeting (2 rolls)
13) Yellow caution tape (3 rolls)
14) Plastic spray cleaning bottles
15) Disposable scrub brush, sponges, and cloths

APPENDIX G

CONTACT LIST

Maintenance staff and management must be prepared to deal with water intrusion and mold events as they occur. The following is a list of resources that are not readily available onsite.

Contact at Servicer – The Indoor Air Quality Manager

For Questions regarding implementation and substance of this BMP and for notification of mold contamination that cannot be addressed by in-house maintenance staff:

Name: _____
Address: _____
Phone: _____
E-mail: _____

Water Damage Restoration Assistance

Company: _____
Contact Name: _____
Phone: _____
_____

Mold Assessment Assistance

Consultant to help identify the source of moisture, the extent of mold growth, write remediation specification and/or conduct post-remediation assessments.

Company: _____
Contact Name: _____
Phone: _____
_____

Mold Remediation Assistance

Contractors to respond to mold contamination that cannot be addressed by in-house maintenance staff:

Company: _____
Contact Name: _____
Phone: _____
_____

Rental Equipment

Access to special equipment not kept onsite, such as blowers and dehumidifiers

Company: _____
Phone: _____
Equipment Available: _____
_____

Equipment Purchasing

Companies used for purchasing special supplies such as disposable clothing, respirators, cleaning supplies, and plastic sheeting

Company: _____
Phone: _____
Equipment Available: _____
_____

APPENDIX H

Table 1: Water Damage – Cleanup and Mold Prevention	
Guidelines for Response to Clean Water Damage within 12-24 Hours to Prevent Mold Growth	
Water-Damaged Material	**Actions**
Carpet and backing–dry within 12–24 hours*	• Remove water with water extraction vacuum. • Reduce ambient humidity levels with dehumidifier. • Accelerate drying process with fans.
Ceiling tiles	• Discard and replace.
Cellulose insulation	• Discard and replace.
Concrete or cinder block surfaces	• Remove water with water extraction vacuum. • Accelerate drying process with dehumidifiers, fans, and/or heaters.
Fiberglass insulation	• Discard and replace.
Hard surface, porous flooring* (Linoleum, ceramic tile, vinyl)	• Vacuum or damp wipe with water and mild detergent and allow to dry; scrub if necessary. • Check to make sure underflooring is dry; dry underflooring if necessary.
Non-porous, hard surfaces (Plastics, metals)	• Vacuum or damp wipe with water and mild detergent and allow to dry; scrub if necessary.

Table 1: Water Damage – Cleanup and Mold Prevention	
Guidelines for Response to Clean Water Damage within 12-24 Hours to Prevent Mold Growth	
Water-Damaged Material	**Actions**
Upholstered furniture	• Remove water with water extraction vacuum. • Accelerate drying process with dehumidifiers, fans, and/or heaters. • May be difficult to completely dry within 48 hours. If the piece is valuable, you may wish to consult a restoration/water damage professional who specializes in furniture.
Wallboard (Drywall and gypsum board)	• May be dried in place if there is no obvious swelling and the seams are intact. If not, remove, discard, and replace. • Ventilate the wall cavity, if possible.
Window drapes	• Follow laundering or cleaning instructions recommended by the manufacturer.
Wood surfaces	• Remove moisture immediately and use dehumidifiers, gentle heat, and fans for drying. (Use caution when applying heat to hardwood floors.) • Treated or finished wood surfaces may be cleaned with mild detergent and clean water and allowed to dry. • Wet paneling should be pried away from wall for drying.
Source: U.S. EPA, "Mold Remediation in Schools and Commercial Buildings" (March 2001, Updated June 2001).	

*The subfloor under the carpet or other flooring material must also be cleaned and dried. See the appropriate section of this table for recommended actions depending on the composition of the subfloor.

APPENDIX I

MOLD INSPECTION / INCIDENT REPORT

Property Name: _____ Number: _____ Date: _____
Prepared By: _____ Title: _____ Phone: _____
Location of Incident: _____ Apt: _____ Floor: _____
Address: _____ City, _____ Zip: _____
Person Making Request/Complaint: _____ Home Phone: _____ Work Phone: _____
Address: _____
Inspection performed by: _____ Title: _____
Type of Inspection: Turnover: Periodic: Request
Description of request or incident: _____

Inspection procedures: Visual: _____ Other: _____ Describe: _____

Areas of Inspection / EPA Remediation Levels *(See EPA Table 2 Chapter VIII)*

Ceiling	Location:	EPA Level: _____
Wall	Location:	EPA Level: _____
Window	Location:	EPA Level: _____
Vent	Location:	EPA Level: _____
Duct	Location:	EPA Level: _____
Bath/Shower	Location:	EPA Level: _____
Kitchen	Location:	EPA Level: _____
Laundry Room	Location:	EPA Level: _____

Conditions causing request

Condensation	HVAC	Bath	Window	Kitchen	_____
Leak	Pipe	Roof	Bath	Kitchen	
Flood					
Overflow	Clean	Black	_____ (Black water considered contaminated)		

Condition of material

Deterioration	None	Some	Widespread	_____
Water Damage	None	Some	Widespread	_____
Exposed Surface Area	None	Some	Widespread	_____

Is Corrective action needed? Yes ____ No _____
Can Corrective Action be performed in-house following O & M procedures? Yes ____ No _____
Table 1 Table 2
Repair/Clean Up procedures followed:
Clean Up
Replacement of material Sheetrock _____ Insulation _____ Ceiling _____
Painting _____ Venting _____
Disposal _____
Is more corrective action needed? Yes _____ No _____

If Yes proceed to *Appendix K*. If No, Report is now complete.

APPENDIX J

ADDITIONAL TESTING / CLEAN UP / REMEDIATION FOLLOW UP

IAQ Manager notified (*Appendix H*)? Yes _____ No _____

Additional work discussed _____

_____

Outside Professionals Contacted Yes _____ No _____

Environmental	_____	Phone	_____
Testing	_____	Phone	_____
Engineering	_____	Phone	_____
Remediation	_____	Phone	_____
Other	_____	Phone	_____

Work authorized to complete by outside professionals: _____

_____

Work completed by outside professionals:

_____

_____

Other

_____

_____

Resident Notifications sent Yes _____ No _____

Work complete Date

Done By: _____ Phone: _____

Results: _____

Attach copy

APPENDIX K

INCIDENT TRACKING LOG

Apt. #	Reported by:	Date	Condition Reported	Action Taken	Follow-Up Date	Follow Up Action

APPENDIX L

RESIDENT FOLLOW-UP LETTER

Enter Community Name
Address
Phone Number

Date: ENTER DATE

To: ENTER RESIDENT(S) NAME

From: ENTER PROPERTY MANAGER'S NAME

Re: FOLLOW-UP

Apt #_____

Dear Resident(s):

It has been [insert appropriate time] days since we inspected (and/or treated) your apartment. We hope that all of your concerns have been addressed (and/or remedied) to your satisfaction.

Please refer to the attached information, which contains useful tips for preventing moisture infiltration and resultant mold growth in your apartment home.

If you notice any evidence of moisture infiltration or mold growth in your apartment, please immediately notify the management office.

APPENDIX M

RESIDENT INFORMATION CHECKLIST

Information provided to residents must be documented. The property manager should place the date or "NA" in each box for each unit. All relevant documents associated with the checklist, such as copies of the resident tip sheet, signed leases, formalized inspection schedules, and incident tracking logs should also be filed and stored.

Property Name and Building Address: _____

Unit #	Provide Tip Sheet to Residents (date)	Current Lease with Mold Provisions (date)	Initial Correspondence Regarding Event (date)	Follow Up Correspondence Regarding Event Resolution (date)

APPENDIX N

TIP SHEET ON MOLD

It is our goal to maintain the highest quality living environment for our residents. To help achieve this goal, it is important to work together to minimize the potential for conditions that could lead to the growth of naturally occurring mold.

Tips for residents

Residents can help minimize mold growth in their apartment homes by taking the following actions:

- Open windows. Proper ventilation is essential. If it is not possible to open windows, run the fan on the apartment air-handling unit to circulate fresh air throughout your apartment**.**
- In damp or rainy weather conditions, keep windows and doors closed.
- If possible, maintain a temperature of between 10º and 72º Fahrenheit within your apartment at all times.
- Clean and dust your apartment on a regular basis as required by your lease. Regular vacuuming, mopping, and use of environmentally safe household cleaners is important to remove household dirt and debris that contribute to mold growth.
- Periodically clean and dry the walls and floors around the sink, bathtub, shower, toilets, windows and patio doors using a common household disinfecting cleaner.
- On a regular basis, wipe down and dry areas where moisture sometimes accumulates, like countertops, windows and windowsills.
- Use the pre-installed bathroom fan or alternative ventilation when bathing or showering and allow the fan to run until all excess moisture has vented from the bathroom.
- Use the exhaust fans in your kitchen when cooking or while the dishwasher is running and allow the fan to run until all excess moisture has vented from the kitchen.
- Use care when watering houseplants. If spills occur, dry up excess water immediately.
- Ensure that your clothes dryer vent is operating properly, and clean the lint screen after every use.
- When washing clothes in warm or hot water, watch to make sure condensation does not build up within the washer and dryer closet; if condensation does accumulate, dry with a fan or towel.
- Thoroughly dry any spills or pet urine on carpeting.
- Do not overfill closets or storage areas. Ventilation is important in these spaces.
- Do not allow damp or moist stacks of clothes or other cloth materials to lie in piles for an extended period of time.
- Immediately report to the management office any evidence of a water leak or excessive moisture in your apartment, storage room, garage, or any common area.
- Immediately report to the management office any evidence of mold growth that cannot be removed by simply applying a common household cleaner and wiping the area. Also report any area of mold that reappears despite regular cleaning.
- Immediately report to the management office any failure or malfunction with your heating, ventilation, air-conditioning system, or laundry system. Do not block or cover any of the heating, ventilation or air-conditioning ducts in your apartment.
- Immediately report to the management office any inoperable windows or doors.
- Immediately report to the management office any musty odors that you notice in your apartment.

MOLD ADDENDUM

This Addendum is attached to and made a part of the Lease Agreement dated «systemdate» (the "Lease") by and between Grady Management, Inc., as agent for the owner of the Property/Lease Premises (as defined below) ("Landlord") and «leasesigners» ("Tenant") for apartment number «buildingunitnumber» ("Unit") at «sitename» ("the Property/Lease Premises").

The Apartment was inspected prior to your move-in date, and *there is no visible mold* in the kitchen, bathroom(s) or other areas of the Apartment. By signing below, Tenant hereby agrees to maintain the Apartment in a manner consistent with prevention of an infestation of mold or mildew in the Apartment.

Mold is found both indoors and outdoors and in both new and old structures. Tenant is hereby notified that the Apartment is subject to the infestation of mold or mildew if not properly maintained. Molds are naturally occurring microscopic organisms that reproduce by spores. When moldy materials are damaged or disturbed, mold spores are released and spread through the air and are commonly transported by shoes, clothing and other materials. When excess moisture is present inside a structure, mold can grow.

Mold and Mildew: Resident acknowledges that it is necessary for Resident to provide appropriate climate control, keep the Apartment clean, and take other measures to retard and prevent mold and mildew from accumulating in the Apartment. Resident agrees to clean and dust the Apartment on a regular basis and to remove visible moisture accumulation on windows, walls and other surfaces as soon as reasonably possible. Resident agrees not to block or cover any of the heating, ventilation or air-conditioning ducts in the Unit. Resident agrees to immediately report to the management office: (i) any evidence of a water leak or excessive moisture in the Apartment, as well as in any storage room, garage or other common area; (ii) any evidence of mold- or mildew-like growth that cannot be removed by simply applying a common household cleaner and wiping the area; (iii) any failure or malfunction in the heating, ventilation, air conditioning systems or laundry systems in the Apartment; and (iv) any inoperable doors or windows. Resident further agrees that Resident shall be responsible for damage to the Premises and Resident's property as well as injury to Resident and Occupants resulting from Resident's failure to comply with the terms of this Paragraph.

In order to minimize the potential for mold growth in the Apartment, Tenant is required to do the following:

- Tenant shall take all reasonable measures to control the moisture level of the Apartment by immediately reporting to Landlord, in writing, any water intrusion, such as plumbing leaks, drips or "sweating" pipes.

- Tenant shall keep the Apartment clean, particularly the kitchen and bathroom carpets and floors. All moldy food must be thrown away immediately and removed from the Apartment.

- Tenant shall promptly notify Landlord about any air conditioning or heating problems in the Apartment. Tenant shall maintain the temperature in the Apartment within ten degrees (10°) of seventy-two degrees (72°) at all times. Tenant agrees not to run air conditioning while windows are open.

- Tenant shall use bathroom fans while showering or bathing and immediately report to Landlord any non-working fans. While showering, Tenant shall keep the shower curtain inside the bathtub or fully close the shower doors. After showering or bathing, Tenant shall leave the bathroom door open until all moisture on the mirrors and walls of the bathroom has dissipated and shall hang up towels and bath mats so that they will dry completely. Tenant shall use exhaust fans whenever cooking, dishwashing or cleaning.

- Tenant agrees not to wash clothes in the bathroom or hang clothes to dry in the bathroom on a regular or routine basis.

- Tenant shall conduct a visual inspection of the Apartment for the presence of mold growth, including but not limited to window frames, carpet, ceiling tiles, wallpaper, and Tenant's personal property, at least once every two weeks. Tenant shall immediately report to Landlord any mold growth inside the Apartment.

Tenant agrees not to bring any personal property into the unit that may contain mold, especially such items as sofas, mattresses, and pillows. Tenant agrees that he/she may be held responsible for property damage to the Apartment. Landlord will not be liable for any resulting health problems caused by Tenant's failure to comply with this Addendum.

In the event, after you inspect the Apartment, you believe there is mold in the Apartment, you must advise us in writing within five (5) days of your move-in date. Tenant hereby agrees to hold Landlord harmless from any causes of action, demands, liabilities, losses, or claims for damages and expenses, including attorneys' fees, to the extent that such claims arise out of, or are based upon, Tenant's failure to comply with this Addendum.

Tenant(s) (*all sign below*)

Tenant	Date	Witness
Tenant	Date	Witness
Tenant	Date	Witness
Tenant	Date	Witness

Landlord:

As Agent for Owner of Property	Date	Witness