

Moisture Management Plan

Villas of Pine Ridge

3110 Towne Park Drive
Tyler, Texas

EBI Project No. 1115009147

January 26, 2016



Prepared for:

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Building 500, Suite 600
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I.0 INTRODUCTION

I.1 Facility Survey

This Moisture Management Plan (MMP) was developed for the owners, employees, and occupants of Villas of Pine Ridge located at 3110 Towne Park Drive in Tyler, Texas (herein the Subject Property) for their use in controlling the moisture in the building(s). This will assist in preventing mold growth, and to minimize the impact of mold growth by isolating and remedying the source of the moisture/mold and affected materials. This MMP provides the procedures and guidelines that, when used during facility cleaning, maintenance, and general operations, will minimize human exposure to mold and fungus and prevent mold growth due to water damage. This MMP is a long-term management approach. This MMP has been developed to cover maintenance procedures relating to mold and water damage.

Many mold occurrences can be traced back to inadequate management systems and procedures. Sometimes building owners and managers do not have written plans and procedures in place to maintain heating, ventilation and cooling (HVAC) systems, inspect and repair roof and window leaks, replace weather caulking, clean gutters, respond to plumbing problems, clean condensation drain lines, etc.

I.2 Objectives

The primary objectives of an effective MMP are:

- 1) To identify and document areas of mold/water damage;
- 2) To minimize the future occurrence of mold and water damaged materials;
- 3) To provide training to Subject Property maintenance and custodial staff;
- 4) To provide notification to tenants
- 5) To clean or remediate mold/water damaged materials; and,
- 6) To monitor and document the condition of the building materials in regular inspection intervals for mold or water damage.

I.3 Benchmarks of an Effective MMP

For an MMP to be effective, it must be fully implemented at all levels of management and by a single individual who manages any and all activities involving mold and/or water damage. In addition this MMP should be kept on site for annual verification.

Some of the important elements of an effective building management program would include:

- 1) Designated building maintenance manager (with provisions for continuing education and training).
- 2) Telephone call lists for reporting problems.
- 3) Pre-qualified and pre-selected contractors for inspection and repair of HVAC, roofing and siding, plumbing, electrical, etc.
- 4) Procedures and records for HVAC operations, balancing, maintenance.
- 5) Water intrusion reporting (immediate) and repair (within 48 hours) procedures.
- 6) Occupant education and training.

I.4 Moisture Management Plan Elements

This MMP is comprised of the following elements:

- 1) Special work practices allowing trained contractor to safely perform remediation involving mold and water damaged areas.
- 2) Periodic surveillance of all building materials to identify water damage, moisture buildup and the presence of mold/water damaged materials.
- 3) Selection of remediation contractors.
- 4) Training for property maintenance and management staff.
- 5) Providing notification to tenants regarding potential risks involved with moisture intrusion and mold, mitigation resources and documentation of activities related to this MMP.

I.5 Facility Survey

The Subject Property is currently improved with a 148-unit multifamily residential complex, including 37 one-story, concrete slab on grade apartment buildings. Additional structures include a one-story administrative leasing office and a one-story maintenance/laundry building. There are no basements present beneath the existing structures. The existing improvements were reportedly constructed in 1997.

On January 4, 2016, EBI Consulting (EBI) of Burlington, Massachusetts, conducted a Phase I Environmental Site Assessment (ESA) of the Subject Property. Note that at the time of the EBI inspection, a comprehensive mold survey was not conducted at the Subject Property.

Interior areas of the Subject Property buildings to which access was provided and in which building elements were readily observable were inspected for the presence of moisture and visible or olfactory evidence of microbial development. No disassembly of systems or building components or physical or invasive testing was performed. No observations were conducted within concealed locations (construction elements behind wall and ceiling finishes, and other building components, etc.). The scope of this inspection was limited to visual observations of accessible areas for microbial growth and water damaged materials and did not include the collection and laboratory analysis of bulk samples or air samples to confirm the presence of microbial elements.

Representative observations revealed no obvious visual or olfactory indications of the presence of active moisture or mold activity at the Subject Property. In addition to our observation efforts, a questionnaire provided to Subject Property personnel did not indicate the presence of mold, and Subject Property personnel were not aware of the presence of moisture or mold activity. Based on the interviews and conditions as observed at the time of inspection, mold does not appear to be a concern at the Subject Property.

Maintenance, custodial, and construction/renovation personnel should be aware that water damaged, damp or mold containing building materials might also be present behind walls, wall-coverings or above ceilings throughout the buildings.

For the purpose of this MMP, any water-damaged materials encountered at future times will be considered as mold containing. In addition a regularly scheduled and comprehensive inspection should be conducted and documented by appropriately trained staff. Included in Appendix A is a schedule and checklist inspections.

This MMP has been prepared not only for building interiors and HVAC systems, but also for roofs, building exteriors (building materials or surrounding soils/environment) since these can be significant sources of water intrusion.

2.0 MOLD/WATER DAMAGED BUILDING MATERIALS

2.1 General

Mold is a term used to describe a large number of organisms classified as fungi. Studies have linked health effects from persons occupying buildings that contain mold and poor indoor air quality. In addition, mold damages surfaces of building materials. There are currently no regulations for cleaning (remediation) properties with mold or guidance levels established for the amount of tolerable exposure people can be exposed to.

Mold located both indoors and outdoors is a natural part of the environment. Mold is necessary in our environment to break down “dead” material. For mold to grow it requires a viable (living) seed known as a spore, a food source (i.e. wood, paper, cellulose insulation etc.), a moisture source and surface to grow. It can grow without light. Mold spores are very tiny and lightweight, which allows them to disperse easily. Growths of mold often appear as an area of discoloration of a surface, ranging from white, orange, green, brown and black. It is not always possible to see or smell mold; therefore materials that are water damaged should be assumed to contain mold.

Molds thrive in an environment with little ventilation, moisture and organic material. Almost any carbon containing material can provide a food source for mold (wood, paint, plastic, carpet, etc.). Products that are mold resistant are currently being developed. Other factors that influence the mold concentrations indoors include the outdoor concentrations and ventilation rates. Once mold begins growing in a particular location it easily spreads.

The probability that mold growth will occur in a property depends largely on how quickly materials that have become wet are dried. If drying is completed within 48 hours, little to no mold growth should occur. Mold is likely to be present in areas that have had flooding, leaky roofs, damp basements or crawl spaces, plumbing leaks, and combustion appliances not properly exhausted to the outdoors.

Molds will grow and multiply whenever conditions are adequate (sufficient moisture is available and organic material is present). The presence of organic material cannot be prevented, because such materials are the materials with which homes are made. However, the moisture that mold needs to grow, and the accumulation of that moisture can be controlled. All participants in the MMP shall be on the lookout for common sources of indoor moisture that may lead to mold problems.

Certain conditions could lead to mold. All participants in the MMP shall immediately report the following conditions to the Facility Mold/Water Damage Coordinator:

- 1) Any evidence of a water leak or excessive moisture in your apartment, storage room, garage, or any common area.
- 2) Any failure or malfunction with your heating, ventilation, air-conditioning system, or laundry system.
- 3) Any blockage or cover any of the heating, ventilation or air-conditioning ducts.
- 4) Any inoperable windows or doors.
- 5) Any musty odors.

2.2 Medical Aspects

Refer to Appendix D – Mold Basic Facts (from Centers for Disease Control and Prevention (CDC) Website) for Medical and other basic information. Additional information is available on the CDC website: <http://www.cdc.gov/mold/faqs.htm#affect>.

2.3 Regulatory Aspects

Pursuant to the Texas Mold Assessment and Remediation Rules ([25 TAC §§295.301-295.338](#)), any company or individual who performs mold-related activities, including mold assessment, must hold an appropriate license from the State. The rules define “Mold Assessment” as an inspection of a building to evaluate whether mold growth is present, and to what extent. As part of a Mold Assessment, samples may be collected to determine the amount and types of mold that are present; however, sampling is not necessary in many cases. A Mold Assessment Consultant (MAC) is responsible for developing a mold remediation protocol that specifies the estimated quantities and locations of materials to be remediated, the proposed methods to use and clearance criteria that must be met. Texas state law [[25 TAC 295.306\(c\)](#)] requires a licensee, except for a mold analysis laboratory, who is overseeing mold-related activities, to give each client a copy of the Consumer Mold Information Sheet before starting any mold-related activity. Appendix D contains a copy of the TDSHS Consumer Mold Information Sheet. In addition, facility employees and contractors must adhere to general Occupational Safety and Health Administration (OSHA) regulations (i.e. use of personal protective equipment, hazard communication, respiratory protection, control of hazardous energy, etc.) for workers.

3.0 MOLD AND WATER/DAMAGE MANAGEMENT PLAN

3.1 General

Routine maintenance is an opportune time for observing and correcting any condition, which may lead to mold growth. Inspections for mold and water damage should be performed as part of a normal activity. Any water damage and/or mold growth detected should be immediately cleaned and remediated. A scheduled inspection should be conducted and documented in the Inspection Schedule presented in Appendix A.

3.2 Inspections

Inspections should be performed to identify the presence of moisture, water damage or the presence of mold. Materials to be observed include cellulose containing building materials such as ceiling tiles, gypsum wallboard, carpet, and carpet pad. Other materials such as cardboard, insulation, wood, and paper that could wick moisture are also important to inspect.

Routine inspections of building areas shall be scheduled and documented to search for evidence of water intrusion, leaks or mold. At a minimum, these inspections must take place annually for all common areas and areas with a past history of water intrusion, leaks or mold and at unit turnover or at a tenant's request for all units.

Regularly scheduled and comprehensive inspections must be conducted by staff that has received appropriate training and all inspections must be documented. Areas impacted by water intrusion must be scheduled for re- inspection to determine if mold has developed. Areas where mold remediation has been conducted must be scheduled for re- inspection to verify that mold has not redeveloped. If mold has re-occurred and greater than 25 contiguous square feet is present, a licensed mold assessment consultant (MAC) shall inspect the building and develop a protocol for removal.

Areas of the building where condensation could build up including HVAC systems, bathrooms, kitchens, and windows should also be carefully inspected. Walls with coverings such as vinyl wallpaper or wooden paneling should be regularly checked. Areas with earthy or musty odors could also indicate the presence of moisture/water and mold. Basements, crawlspaces, exterior building materials, and exterior soils/environment of the building should be inspected regularly.

Preventative measures should specifically include:

- 1) Fixing all plumbing leaks immediately
- 2) Fix or eliminate sources of condensate buildup (such as windows)
- 3) Maintaining HVAC systems in clean, correct working order and unobstructed.
- 4) Prevent moisture buildups.
- 5) Clean and dry any water damaged areas within 24-48 hours.
- 6) Maintain proper ventilation to the outside of the building all moisture generating appliances.
- 7) Adequate ventilation is essential – open windows during dry weather. If it is not possible to open windows, run the fan on the apartment air-handling unit to circulate fresh air throughout your apartment.
- 8) In damp or rainy weather conditions, keep windows and doors closed.
- 9) If possible, maintain a temperature of between 50° and 80° Fahrenheit within your apartment at all times, and a comfortably low humidity (less than 60% relative humidity).

- 10) 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.
- 11) 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.
- 12) Ensure that your clothes dryer vent is operating properly, and clean the lint screen after every use.
- 13) 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.
- 14) 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.
- 15) Periodically clean and dry the walls and floors around the sink, bathtub, shower, toilets, windows and patio doors using a common household disinfecting cleaner.
- 16) On a regular basis, wipe down and dry areas where moisture sometimes accumulates, like countertops, windows and windowsills.
- 17) Use care when watering houseplants. If spills occur, dry excess water immediately.
- 18) Thoroughly dry any spills or pet urine on carpeting.
- 19) Do not overfill closets or storage areas. Ventilation is important in these spaces.
- 20) Do not allow damp or moist stacks of clothes or other cloth materials to lie in piles for an extended period of time.

The mechanical closets of each apartment unit should be inspected for water damage on the floor surrounding the ventilation equipment. In addition, the ceilings and abutting walls of mechanical closets of lower level apartments should also be inspected for water damage and/or mold. A copy of the Building Interior Inspection Checklist and an Inspection Checklist for the Exterior/HVAC is presented in Appendix A.

3.3 Remediation

An effective remediation includes the removal of contaminated materials in a way that prevents the emission of fungi and spores from leaving the area where they are present and entering an occupied or non-contaminated area.

The ventilation equipment of the buildings including HVAC air handlers, evaporator coils and associated piping should be cleaned and repaired. Sealant associated with the piping should be reapplied. Clogged condensate lines, dirty evaporator coils and air filters should be cleaned or replaced.

Any water releases should be cleaned and dried within 48 hours of occurrence.

General guiding principles for most fungus/mold/water damage remediation projects include:

- 1) The simplest and most expedient remediation that is reasonable, and properly and safely removes fungal growth, should be used.
- 2) The use of respiratory protection, gloves, and eye protection is recommended for all types and sizes of remediation projects.
- 3) Extensive mold growth, particularly if heating, ventilating, air conditioning (HVAC) systems or large occupied spaces are involved, should be assessed by an experienced health and

- safety professional and remediated by personnel with training and experience handling environmentally contaminated materials.
- 4) Lesser areas of mold growth (< 25 contiguous square feet) can usually be assessed and remediated by building maintenance personnel.
 - 5) All remediation plans should be designed to protect the health and safety of both remediators and occupants. If greater than 25 contiguous square feet of mold growth is identified, this plan must be prepared by a license Texas Department of State Health Services (TDSHS) Mold Assessment Consultant

NOTE: A licensed TDSHS Mold Abatement Contractor must be retained to remove greater than 25 contiguous square feet of mold growth. These contractors must follow the guidance of the TDSHS Mold Assessment Consultant's Protocol.

Appendix A-7 presents a table of the proper responses to cleaning up water damage and preventing mold. Appendix A also includes Initial and Follow-up Residential Letters.

4.0 MAINTENANCE PLAN

4.1 General

Maintenance/custodial employees are generally the most familiar with the facility and are therefore most likely to notice a change in material condition within the building. Maintenance/custodial employees are also most likely to be notified in the case of water leaks and/or flooding. Any mold growth or water damage detected during an onsite inspection must be assessed immediately. If less than 25 contiguous square feet of mold growth is present, then maintenance/custodial employees may assess and potentially remediate the contamination. If greater than 25 contiguous square feet of mold growth is present then a TDSHS Mold Assessment Consultant must be retained to inspect and develop a protocol for remediation

Routine inspections should be scheduled weekly as part of normal procedures. These inspections must include areas that were previously flooded and dried. Inspections conducted by the maintenance/custodial employees are to be documented on the Building Inspection Form included in Appendix A and kept as part of the permanent record.

Water intrusion damage could occur from leaking pipes, toilet overflows, condensate line clogs, improper drainage of the surrounding land gradients, etc. Water damaged areas should be dried as soon as possible. Wet/dry HEPA vacuums and high power fans followed with dehumidifiers should be used. Professional drying companies can assist with large-scale flooding/water removal and drying. Professional cleaning companies should also be retained in the event of septic or sewer flooding which introduce larger numbers of bacteria into building materials. Areas that have been dried should be periodically monitored for mold growth. The Emergency Water Damage Form, included in Appendix A should be completed and kept as part of the permanent record.

4.2 Program Management

Key Personnel

For the purposes of this MMP the Program Management includes a Facility Mold/Water Damage Coordinator. The following person has been designated:

Facility Mold/Water Damage Coordinator:

Company: _____
Address: _____
Name / Title: _____
Phone Number (Direct / Mobile): _____

Maintenance and Custodial Staff:

Company: _____
Address: _____
Name / Title: _____
Phone Number (Direct / Mobile): _____

Emergency Water Damage Response Team:

Company: _____
Address: _____
Name / Title: _____
Phone Number (Direct / Mobile): _____

TDSHS Licensed Mold Remediation Contractor Information:

Company: _____
Address: _____
Name / Title: _____
Phone Number (Direct / Mobile): _____

TDSHS Licensed Consultant for Mold, Microbial or Moisture Concerns or Services:

Company: EBI Consulting
Address: 21 B Street, Burlington, MA 01803
Name / Title: Mike Walther, Program Director (Asbestos-Lead-Mold Programs)
Phone Number (Corporate / Direct / Mobile): 800-786-2346 / 410-696-2565 / 410-370-7577

Facility Mold/Water Damage Coordinator

The Facility Mold/Water Damage Coordinator is the individual responsible for managing the overall MMP and acts as the decision-maker on all routine maintenance, as well as emergency coordinator for Mold/Water Damage-related matters. This person should be on site during most working hours at the facility.

The Facility Mold/Water Damage Coordinator should obtain advice from relevant parties such as the company attorney, consultant, and contractors when facing abatement or monitoring

needs. The Facility Mold/Water Damage Coordinator is, however, ultimately responsible for overseeing all aspects of the program. These include:

- 1) Providing information on the Mold/Water Damage materials;
- 2) Notifying employees and occupants of the presence of, and management protocol for, Mold/Water Damage materials
- 3) Training workers;
- 4) Controlling water damaging events;
- 5) Conducting periodic surveillance of the building for potential Mold/Water Damaged materials and
- 6) Maintaining the record-keeping system.
- 7) Issue work permits

Maintenance/Custodial-Staff

Maintenance/Custodial employees are generally the most familiar with the facility and are therefore most likely to notice a change in material condition within the building. Also, these employees are most likely to be notified in the case of a water release, flood or storm damage, and thus are key individuals to implement a functional MMP. To ensure an adequate level of knowledge of Mold/Water Damage-related procedures, a training program for the maintenance and custodial staff will be conducted. A summary outline for a typical training program is presented in Appendix B.

Emergency Water Damage Response Team

When Mold/Water Damaged materials have been identified, the Facility Mold/Water Damage Coordinator will be notified. In accordance with the Texas Mold Assessment and Remediation Rules ([25 TAC §§295.301-295.338](#)) mold inspection guidelines, the Facility Mold/Water Damage Coordinator will determine if the mold/water damage can be cleaned by the Mold/Water Damage Response Team. Their actions will be guided by the procedures provided in this document and good construction practice. When Mold/Water Damage is greater than 25 contiguous square feet, the Facility Mold/Water Damage Coordinator will contact a TDSHS licensed Mold Assessment Consultant to develop a remediation protocol and a TDSHS licensed mold abatement contractor to perform remediation.

4.3 Routine Maintenance/ Custodial Staff Responsibilities

Maintenance/custodial responsibilities include the following:

- 1) Check for condensate buildup or wet spots. Fix or eliminate sources.
- 2) Increase surface temperature or reduce the humidity to prevent moisture in buildings. Dehumidifiers can be used. Insulation or increased air circulation are also appropriate actions.
- 3) Maintain heating, ventilation, drip pans, etc. clean, in proper working conditions and unobstructed.
- 4) Maintain a relative humidity between 30% to 50% (below 60%).
- 5) Check periodically that all moisture-generating appliances are properly vented to the outside of the building. These appliances include ovens, washers and dryers.

The Building Inspection Form included in Appendix A should be used to document these inspections.

A Work Permit for Maintenance Work should be obtained by the Program Manager. The Work Permit should be logged onto the Work Permit Log. These forms are included in Appendix C.

4.4 Emergency Water Damage Response Team Responsibilities

Emergency Maintenance activities, which may be required at the Subject Property, include the following activities:

- 1) Fix all plumbing leaks within the building system.
- 2) Clean and dry any wet areas within 48 hours of occurrence.
- 3) Provide proper foundation drainage, including maintaining sump pumps, trench drains, and downspouts for gutters. This can be a result of heavy rains or storms.
- 4) Fix any leaking structural features, roofs, windows, doorways, etc.

The Emergency Water Damage form included in Appendix A should be used to document these repairs.

A Work Permit for Maintenance Work should be obtained by the Program Manager. The Work Permit should be logged onto the Work Permit Log. These forms are included in Appendix C.

4.5 Training

Facility Coordinator, Maintenance and Custodial Staff, and Emergency Response Personnel should receive three hours of training regarding mold. The topics of this training must include the following:

- 1) Introduction to mold
- 2) Lifecycle of mold
- 3) Health affects
- 4) Procedural issues pertaining to the administration of the MMP
- 5) Public Relations with residents
- 6) Legal issues
- 7) Texas state mold licensing requirements
- 8) Document/notification and record keeping.
- 9) Review and acknowledgement of understanding of the MMP
- 10) An example training schedule is presented in Appendix B.

In addition, the Facility Coordinator and Emergency Response Personal should receive supplemental training. The topics of this training should include the following:

- 1) Use of special equipment.
- 2) Use of disinfectants and sanitizers.
- 3) Personal Protection Equipment.

Contractors involved with mold remediation should be contracted for large-scale (>25 contiguous square feet) remediation projects. The contractors must be TDSHS licensed mold abatement contractors. Their additional training should include:

- 1) TDSHS License

- 2) Hazards associated with the remediation activities.
- 3) Use of special equipment.
- 4) Construction of containment.
- 5) Personal Protective Equipment.
- 6) Be included in a Respiratory Protection Plan for their employers.

4.6 Record-Keeping

The record keeping system must accurately track data on the location of the Mold/Water Damage-materials, actions taken on the Mold/Water Damage materials, and data associated with the removal/remediation of Mold/Water Damage materials. The Facility Mold/Water Damage Coordinator is to maintain the record keeping system in a central location and in a condition suitable for audit. The essential records are described below.

Survey Report

Mold/Water Damage survey reports or analytical results provided by contractors should be filed on-site. It should be noted that such reports/results do not exist at this time for the Subject Property.

Inspection Reports

Facility Mold/Water Damage Coordinator reports resulting from inspections and emergency response activities performed are filed here.

Third party reports are also filed in this section. Prevalent area air samples taken as part of an inspection (conducted by a TDSHS licensed mold assessment consultant) or remediation (conducted by a TDSHS licensed abatement contractor) will also be filed in the Air Monitoring Report Section of the record-keeping system.

Other documents to be kept in the Inspection Reports are Resident Correspondences and notification letters.

Mold/Water Damage Location Listing

This listing shall include, at a minimum, the following information:

- 1) Most recent update of the listing.
- 2) Location of all Mold/Water Damage material.
- 3) Delineated areas of remediation.
- 4) Method of abatement.
- 5) Start date and completion date of activity.
- 6) Contractor's name and pertinent certification.

This listing shall be periodically reviewed and updated to include any abatement activity or emergency response to water damage event.

NOTE: If greater than 25 contiguous square feet of mold growth is identified during this periodic evaluation, a licensed TDSHS mold assessment consultant should be retained prior to any attempt to remediate.

Air Monitoring Reports

In many cases, it may be prudent to request a qualified industrial hygienist (the American Industrial Hygiene Association provides a consultants listing at www.aiha.org) to collect air

samples to ensure that the space is essentially free of mold amplification and suitable for re-occupancy. This type of sampling is typically referred to as “clearance sampling”, “re-occupancy assessment”, “re-occupancy sampling”, or “final re-occupancy inspection”, “post remediation sampling”, among other terms. In all cases, this air sampling should be used to supplement the final visual inspection. Air monitoring should not be considered a replacement for a diligent final visual inspection.

Copies of all air monitoring test results should document:

- 1) prevalent level airborne concentration;
- 2) effectiveness of abatement activities;
- 3) emergency investigation; and
- 4) airborne mold concentration during periodic reinspections.

Training Records

Records of confirmation of attendance of personnel at training programs shall be kept. These records shall include the purpose of each program and the signature of the person attending.

4.7 Awareness Program/Communication Plan

Through the use of the acknowledgment forms provided in Appendix A, the owner of the building is demonstrating the intent to acknowledge the TDSHS licensing requirements for mold inspection and remediation activities; as well as the hazards associated with water damage and mold.

Employee Notification Letter

This notification letter provides information regarding the MMP procedures to appropriate employees. In addition, this form should be an addendum to the lease agreement.

Tenant/Occupant Notification

Tenants need to be notified regarding the risks associated with moisture and mold, the actions they can take to mitigate these risks, and any corrective measures taken by management regarding moisture or mold. Documentation must include the residents’ acknowledgement of their responsibilities. Further, when mold is observed, residents must be informed regarding the observations and planned remedial actions. How residents are informed, when they are provided information, which is responsible for providing this information, and how this information is recorded should include:

- 1) *Resident Tip Sheet*
- 2) *Lease Provision or Addendum Tips:*
- 3) *Initial Resident Letter*
- 4) *Follow-up Resident Letter*
- 5) *Resident Information Checklist*
- 6) *TDSHS Consumer Mold Information Sheet; when applicable*

(Examples of these Notification Letters and Forms are included in Appendix A)

Employee Notification Form

Upon receipt of appropriate training, this notification form will be signed by employees who may work with Mold/Water Damage at the Subject Facility.

Contractor, Vendor, and Repairman Notification Form

The Contractor, Vendor, and Repairman Notification Form are used to notify outside agents of the potential presence of Mold/Water Damaged materials within the Subject Facility. This Form is used to ensure outside agents are notified of the hazards associated with potential Mold-containing materials and that they have been informed of, and acknowledge the potential hazards associated with working in the presence of Mold.

5.0 REMEDIATION GUIDANCE

5.1 General

Pursuant to the Texas Mold Assessment and Remediation Rules (TMARR) ([25 TAC §§295.301-295.338](#)), a mold abatement contractor must be retained to abatement greater than 25 contiguous square feet of mold growth

Contractors will need to look at the property before submitting a bid. Contractors should also be provided with information regarding the known or suspected mold/water damaged areas prior to entering the property.

The source of water/moisture must be repaired or removed. Depending on the severity and location of mold, extent of physical damage, and qualifications of contractors available in your area, several contractors may be required to complete the mold remediation. It is imperative that the source of water accumulation is repaired or mold growth will recur. It is also important that all surfaces are completely dried before any remodeling is done.

Note that certain building materials may contain hazards other than mold, such as lead paint or asbestos. Prior to any cleaning, handling, repair or disposal of Mold/Water Damaged materials, determination of potential lead or asbestos content of such materials by a qualified inspector may be necessary. Special handling, abatement and disposal procedures by qualified, highly trained and TDSHS licensed personnel are necessary for lead and asbestos containing materials. Such procedures are not covered by this MMP.

5.2 Typical Cleaning Procedures

To help ensure a healthy indoor environment, the mold should be removed. On non-porous surfaces, the mold can usually be wiped clean with soaps and disinfectants, and the material re-used. For porous materials (i.e. wallboard, wood, etc.), the contaminated material usually needs to be removed and replaced. Per TMARR ([25 TAC §§295.301-295.338](#)) mold inspection guidelines, less than 25 contiguous square feet of mold growth can be cleaned by the owner/manager, with appropriate personal and environmental protection, while areas greater than 25 square feet of mold growth require the use of a TDSHS licensed mold assessment consultant and mold abatement contractor.

Although the qualifications and experience of contractors will vary, typical procedures for cleaning and remediating properties with mold are outlined below.

- 1) The property should be secured and access into the property should be limited to contractors and employees performing cleaning/remediation. The property should remain secured for 2 to 3 days after cleaning/remediation to allow the cleaned areas to air out and dry.
- 2) The source of moisture/water needs to be eliminated and excess moisture/water removed from the property. Water damage may have resulted from broken pipes, an inoperable sump, leaking roof, etc. Be sure that the contractor selected to make these repairs is qualified and can complete the repairs and cleaning before mold cleaning/remediation. It is imperative that repairs be complete, so that water damage does not recur and provide opportunity for mold growth to reoccur.
- 3) Non-porous (metal, glass, and hard plastics) and semi-porous (wood and concrete) materials that are structurally sound and visibly moldy can be cleaned and reused or cleaned in-place.

- Area with mold should be contained and HEPA-vacuumed. Cleaning should be performed using a detergent solution (ammonia-free) and stiff brush or pad. Wood may need to be sanded, planed, or refinished (see Section 5.1). Cleaning should extend to an area two feet beyond the visible mold. After cleaning and rinsing, the area should be disinfected using a solution with 10% bleach (1 part bleach plus 9 parts water). Higher concentrations of bleach are not more effective. Based on a summary review of existing mold literature, a diluted bleach solution is currently preferred over usage of commercial biocides.
- 4) Porous materials such as ceiling tiles, insulation, and wallboards should be removed and properly disposed of (see Section 5.1). An area extending beyond the visibly contaminated material by a two-foot radius should also be removed and appropriately disposed. Personal possessions should also be appropriately disposed.
 - 5) Carpeting and carpet pad is difficult to clean. Both the carpet and pad should be removed and appropriately disposed. The flooring beneath the carpet is typically cleaned as a non-porous material.
 - 6) Some mold may be hidden behind walls or flooring. Modifications to the scope of work should be accommodated if hidden mold is identified once cleaning /remediation activities have begun.
 - 7) All materials removed for disposal should be sealed in 6-mil plastic bags and appropriately disposed. Currently there are no special requirements for disposal of mold-contaminated materials. Some contractors may wish to track the wastes by preparing a “manifest” or “bill of lading” for disposal.
 - 8) If a manifest or bill of lading is prepared, copies of the manifest should be maintained with other documents concerning the mold cleaning/remediation. The contractor should also consider whether materials to be removed are to be tested and treated as Mold/Water Damage prior to cleaning and remediation. When great than 25 contiguous square feet of mold growth must be removed, an abatement protocol must be prepared by a TDSHS Mold Assessment Consultant. This scope of work should be prepared in accordance with applicable state or local regulations.
 - 9) The contractor should provide a final cleaning of all surfaces and the general worksite. Dust, debris, and construction trash generated during the contractor’s activities need to be removed and appropriately disposed. Surfaces and work areas should be vacuumed with a HEPA vacuum. Cleaned surfaces and surrounding work area should be given a “final cleaning” with a damp cloth or mop and a detergent solution, followed by a water rinse. All areas should be left dry and visibly free of dust and debris.
 - 10) Prior to rebuilding, all remediated areas and exposed structural members should be disinfected with a 10% bleach solution, which should be spray-applied, and allowed to air dry. Contractors should not use chlorine dioxide or gaseous ozone for cleaning. These and other cleaning compounds may be toxic and may pose a health threat to future owners/occupants.
 - 11) The contractor should provide documentation after the project is complete to confirm that the property is left in good condition and all visible areas of mold have been cleaned/remediated. An example checklist that can be used at the time of job completion is attached to this document. If greater than 25 contiguous square feet of mold growth was identified and a protocol developed by a mold assessment consultant, the TDSHS requires that clearance is conducted by employing at least one analytical method (ie, spore trap air sampling).
 - 12) Contractors are required to have proper training and protection for their employees. During all inspection, investigation, and remediation activities, the contractor is responsible for providing their own personal protective equipment, as deemed necessary by the contractor. Personnel trained in the handling of hazardous materials and equipped with respiratory protection, (e.g., N95 disposable respirator), in accordance with the OSHA

respiratory protection standard (29 CFR 1910.134), is recommended. At a minimum for small jobs, gloves and eye protection should be worn.

- 13) If the area of mold growth is extensive or within the HVAC system, or if any portions of the property are occupied, additional cleaning requirements may be necessary, such as: additional ventilation, dust suppression and cleaning during removal; oversight of the project by a health and safety professional with experience performing microbial investigations; and/or confirmatory laboratory analysis (air sampling) after the cleaning/remediation is complete.

5.3 Typical Contract Requirements

When selecting a reputable mold remediation contractor, the property owner/manager should consider many factors, including:

- 1) Their experience, training, education, certification. NOTE: Must have a license from TDSHS for greater than 25 contiguous square feet of abatement.
- 2) References from previous projects.
- 3) A written Remediation Plan to include SOP's for worker safety, occupant safety, sampling and monitoring (bulk, swab, air), containment procedures, remediation procedures, chemical use procedures and MSDS's .
- 4) Adequate level of insurance coverage provided.
- 5) On-site supervision to direct worker activities.
- 6) Safety & Health Professional for site monitoring, consultation and advice.
- 7) Personal Protective Equipment is provided and worn.
- 8) Access into the building should be restricted before and during remediation.
- 9) During removal of mold and affected material, construction barriers should be in place, and the utilities secured.
- 10) Containment is appropriate for the level of mold growth. Depending on the severity of the mold growth, the contractor may need to provide engineering controls that restrict dispersal of airborne contaminants. This could include the use of HEPA filters, creating a negative pressure in the area to be cleaned, and the use of HEPA vacuums.
- 11) Waste debris removal and disposal is planned to conform with local ordinances.
- 12) Clearance documentation is provided (certification that remediation is satisfactory and area is clean for re-occupancy).

If building structural repair work is necessary to eliminate a source of water intrusion, the project should be properly designed, managed, and executed by qualified, professional contractors.

In both remediation and building repair projects, the owner/manager should ensure proper completion to the owner's satisfaction before signing-off and re-occupying the space.

Contract requirements should include several safety caveats. These safety requirements include:

A "Punch list" should be prepared and agreed upon between the property owner and contractor. An example of the "Punch list" is attached.

6.0 REFERENCE MATERIALS

U.S. Environmental Protection Agency—Indoor Air Quality

- 1) General information: <http://www.epa.gov/iaq/> or the Indoor Air Quality Information Clearinghouse, at 800.438.4318
- 2) Mold-specific information: <http://www.epa.gov/iaq/molds/index.html>
- 3) EPA's guidance, *Mold Remediation in Schools and Commercial Buildings*, can be found at <http://www.epa.gov/iaq/molds/images/moldremediation.pdf>
- 4) The document *Building Air Quality: A Guide for Building Owners and Facility Managers*, at <http://www.epa.gov/iaq/largeblids/baqtoc.html> has an appendix (Appendix C), which specifically deals with moisture and mold concerns.
- 5) The mold resources page, <http://www.epa.gov/iaq/molds/moldresources.html>, contains many useful links and is a good starting point for anyone wanting to learn more about mold.

U.S. Department of Labor, Occupational Safety and Health Administration

- 1) Mold-specific information: <http://www.osha.gov/SLTC/molds/>
- 2) Provides information about applicable standards (OSHA and ANSI) as well as general mold information and testing methods.
- 3) Also provides a link to *Fungal Contamination in Public Buildings: A Guide to Recognition and Management*, from the Federal-Provincial Committee on Environmental and Occupational Health, Environmental Health Directorate, Health Canada: http://www.hc-sc.gc.ca/heccsesc/air_quality/pdf/fungal.pdf. While some of the information is specific to Canada's regulations, this document provides a thorough review of mold information and treatment. New York City Department of Health & Mental Hygiene.
- 4) New York City has issued a comprehensive review and guidance on mold issues, the *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.

American Industrial Hygiene Association

- 1) General information: www.aiha.org or 703.849.8888
- 2) *The Facts About Mold: A Glossary* available at <http://www.aiha.org/governmentaffairs-pr/html/moldglossary.htm>
- 3) Mold information and links available at <http://www.aiha.org/SplashPages/html/topic-mold.htm>
- 4) American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.
- 5) General information: <http://www.ashrae.org/> or 800.527.4723
- 6) ASHRAE has compiled a book, *Mold and Moisture Management in Buildings*, available for purchase online at <http://resourcecenter.ashrae.org/store/ashrae/newstore.cgi?itemid=21029&view=item&categoryid=174&categoryparent=174&page=1&loginid=89000>.

Texas Mold Assessment and Remediation Rules: Consumer Mold Information Sheet

Sources for Industry Information

National Multi Housing Council

- 1) General information: <http://www.nmhc.org> or 202.974.2300
- 2) Mold and mildew page: <http://www.nmhc.org/Content/BrowseIssues.cfm?IssueID=78>

- 3) NMHC offers guidance, *Operations and Maintenance Plan for Mold and Moisture Control in Apartment Properties*, available for members only.
- 4) Some of the website's links are for members only.

National Apartment Association

- 1) General information: <http://www.naahq.org/> or 703.518.6141.
- 2) Provides a link to purchase the Mold Operations and Maintenance Training Program for Multifamily.
- 3) Housing Professionals video: <http://www.naahq.org/Education/moldflyer.PDF>
- 4) Most links are for members only.
- 5) National Association of Home Builders.
- 6) General information: <http://www.nahb.org/> or 800.368.5242.
- 7) Mold page: <http://www.nahb.org/page.aspx/category/sectionID=205>
- 8) Also offers the Household Mold Resource Center, at <http://www.moldtips.com/> (primarily geared toward single-family homeowners).

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:

- 1) 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.
- 2) Information Clearinghouse at 800.438.4318.
- 3) 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.

APPENDIX A

FORMS

APPENDIX A - Forms

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EMPLOYEE AND OCCUPANT NOTIFICATION LETTER

Dear _____:

EBI CONSULTING (EBI) was recently retained by the building owner to prepare a Moisture Management Plan (MMP) for suspect Mold/Water Damage at Villas of Pine Ridge located at 3110 Towne Park Drive in Tyler, Texas (herein the Subject Property).

Note that at the time of the EBI inspection, a comprehensive Mold/Water Damage survey was not conducted at the Subject Property.

EBI has prepared an MMP that will enable us to manage the Mold/Water Damage-containing materials without adversely affecting the operation of our facility and, more importantly, the health and safety of our employees and occupants. This MMP defines specific operating and maintenance procedures to be followed at all times.

For the MMP, I have been designated as the Facility Mold/Water Damage Coordinator. All work shall be coordinated through me. Together, we will ensure that the requirements of the Operations and Maintenance Plan are understood, identify the locations of the Mold/Water Damage materials and provide the procedures that must be followed so that Mold spores are not released into the air.

Please be assured that the implementation of the MMP will play a major role in the continued safe operations at the building. If you have any questions concerning this matter, please contact me.

Sincerely,

Facility Mold/Water Damage Coordinator

Lease Provision or Addendum Tips

Tenants must be informed of the risks associated with mold and their obligations to reduce these risks. Following are points to be addressed in the lease itself or in an addendum.

Tenant responsibility/acknowledgement:

- 1) Acknowledgement by the tenant of his/her obligation to take measures to prevent moisture accumulation and mold growth, including appropriate climate control, regular cleaning, removal of visible moisture accumulations, and clearing all vents and ducts from obstructions.
- 2) Acknowledgement by the resident that he/she has received the information regarding mold and actions to mitigate its risk.
- 3) Tenant's agreement to promptly report leaks, moisture or visible evidence of mold growth in his/her unit, malfunction of HVAC or laundry equipment in the unit, plumbing leaks, any water accumulation due to leaks. Please be sure to report the following problems in your home:
 - 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 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.

Initial Resident Letter of Inspection

Property Name
Property Manager or Contact Person
Address
Phone Number

Date:

To: Resident(s) Name
Building / Unit # _____

From: Property Manager's Name

Re: Moisture and Mold Inspection Results

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 information about mold and useful tips for preventing mold growth in your apartment home.

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

Sincerely,
Property Manager
Attachment (Section I of the MMP)

Follow Up RESIDENT LETTER

Property Name
Property Manager or Contact Person
Address
Phone Number

Date:
To: Resident(s) Name
Building / Unit # _____

From: Property Manager's Name

Re: Moisture and Mold Follow-Up
Dear Resident(s),

Following our initial remediation on (insert date) of moisture (and/or mold) in your apartment, we have reinspected to ensure that the problem has been solved. As of (insert date of re- inspection), no evidence of moisture or mold was found in your apartment. We hope that all of your concerns have been addressed to your satisfaction.

Thank you for your cooperation with this issue. If this problem recurs, or if you notice any other evidence of moisture intrusion or mold growth in your apartment, please immediately notify the management office.

Sincerely,
Property Manager

Portions used with the permission of the National Multi-Housing Council, Inc.

Resident Information Checklist

Information provided to tenants must be documented. The property manager should place the date or "NA" in each box for each unit.

Property Name and Building Address:_____

Unit:_____

Current Lease with Mold Provisions:_____

Initial Correspondence Regarding Event:_____

Follow-up Correspondence Regarding Event:_____

Resolution:_____

EMPLOYEE NOTIFICATION FORM

DATE:	
LOCATION:	
RE:	<i>Notification of Presence of Mold/Water Damage</i>
<p>I have received Mold/Water Damage Awareness Training. I have been advised of the potential presence of Mold/Water Damage-containing materials at Villas of Pine Ridge located at 3110 Towne Park Drive in Tyler, Texas (herein the Subject Property). I am aware that Water Damage and/or Mold may become present at the Subject Property. I have been advised that, if mold is present there is a potential health risk.</p> <p>I have been advised of the dangers inherent in handling and breathing Mold, which could cause allergic and/or respiratory damage. The health affects resulting from mold exposure are currently unknown.</p> <p>I acknowledge and understand that any contact with Mold whether visible or not, may cause an allergic response or worse.</p>	
SIGNATURE:	
SOCIAL SECURITY NO.:	
WITNESS:	

CONTRACTOR, VENDOR AND REPAIRMAN NOTIFICATION FORM

DATE:	
LOCATION:	
RE:	<i>Notification of Presence of Mold/Water Damage</i>
<p>I have received Mold/Water Damage Awareness Training. I have been advised of the possible presence of Mold/Water Damage-containing materials at Villas of Pine Ridge located at 3110 Towne Park Drive in Tyler, Texas (herein the Subject Property). I have been advised that, if mold is present there is a potential health risk. Mold may produce airborne mold spores, which may be toxic.</p> <p>I have been advised of the dangers inherent in handling Mold/Water Damage building material and breathing Mold, including, but not limited to, the fact that Mold may cause allergic responses in certain persons and other long-term pulmonary ailments. I understand that, at a minimum, completion of a formal Mold/Water Damage awareness training program is required prior to my participation in any Mold disturbance, abatement or removal activities.</p> <p>I acknowledge and understand that any contact with Mold whether visible or not, may cause adverse health affects, which may not be detectable for many years.</p>	
SIGNATURE:	
SOCIAL SECURITY NO.:	
WITNESS:	

EMERGENCY WATER DAMAGE FORM

DATE:

BUILDING:

LOCATION:

CAUSE OF EMERGENCY WATER RELEASE

CLEAN UP AND DRYING PROCEDURES FOLLOWED:

DESCRIPTION OF ACTIONS TAKEN:

SIGNATURE:

TITLE:

BUILDING INSPECTION FORM

DATE:	BUILDING:	FLOOR:
INSPECTION LOCATIONS:		
REASON FOR INSPECTION:	DAMAGED MATERIAL:	PERIODIC SURVEY:
IF DAMAGED MATERIAL IS REASON FOR INSPECTION, PLEASE COMPLETE 1 THROUGH 5		
1. TYPE OF MATERIAL DAMAGED:		
2. CAUSE OF DAMAGE:		
3. APPROXIMATE SIZE OF DAMAGED AREA:		
4. IS THERE PERSONAL BELONGINGS OR DEBRIS ON FLOOR OR OTHER LOCATIONS?		
5. ARE EMPLOYEES/TENANTS/SUBCONTRACTORS IN IMMEDIATE AREA?		
6. HAS MATERIAL CONDITION CHANGED SINCE LAST INSPECTION?		
COMMENTS:		
NEXT SCHEDULED INSPECTION DATE:		
INSPECTOR'S SIGNATURE(S):		

Inspection Schedule

Inspections must be regularly scheduled.

Property Name and Building Address: _____

Unit: _____

Proposed Date of Inspection: _____

Approval of Date by Tenant: _____

Actual Date of Inspection: _____

Name of Inspector: _____

Interior Inspection Checklist

Building: _____

Unit: _____

Observation Date: _____

All of the areas noted on the checklist must be routinely checked by trained staff

Basement / Laundry Room Identify Issue Date _____ Corrected _____	
Check floor	Check ceiling or structure above
Check furnace	Check walls
Check windows	Check exterior doors
Check all vents	Check washing machine
Check any plumbing lines/risers	Check water heater (all fittings)

Kitchen / Bedroom / Living Room Identify Issue Date _____ Corrected _____	
Check floor	Check inside cabinets
Check windows	Check ceiling or structure above
Check sink	Check sliding doors
Check faucets	Check carpet, including tack strip in corners
Check stairs	Check closets
Check exterior doors	Check walls
Check refrigerator	Check icemaker (connections)
Check bathtubs/showers	Check baseboard heaters
Check toilets	Check shelving
Check bathroom exhaust fans	Check fireplace

Additional rooms - Indicate locations

HVAC (note signs of mold or moisture) Identify Issue Date _____ Corrected _____	
Check operation	Check air circulation
Check thermostat	Check evaporator coil
Check condensate pan	Check condenser coil
Check condenser fan motor	Check furnace
Check baseboard heaters	Check all vents
Change filters	

Hallways/ Common Areas Identify Issue Date _____ Corrected _____	
Check floor	Check ceiling or structure above
Check any plumbing lines/risers	Check walls
Check windows	Check exterior doors
Check underside of roofs, especially at roof intersections	Check ridge and gable vents
Check all roof penetrations	Check carpet, including tack strip in corners
Check common storage areas	Check dormers

Exterior Inspection Checklist

Building: _____

Unit: _____

Observation Date: _____

All of the areas noted on the checklist must be routinely checked by trained staff

Building exterior Identify Issue Date _____	Corrected _____
Check foundation	Check gutters / down spouts
Check stairs	Check landscaping at building perimeter
Check exterior utility closet	Check irrigation system
Check roof	Check caulk around windows and doors and connecting corner trim
Check mortar and bricks for damage	

HVAC (note signs of mold or moisture) Identify Issue Date _____	Corrected _____
Check operation	Check air circulation
Check thermostat	Check evaporator coil
Check condensate pan	Check condenser coil
Check condenser fan motor	Check furnace
Check baseboard heaters	Check all vents
Change filters	

Patio / Balcony Identify Issue Date _____	Corrected _____
Check roof	Check exterior doors
Check deck surface	Check storage closet
Check exterior paint	

CONTRACTOR "PUNCHLIST"

Date project started: _____ Date of completion: _____

Copies of required insurance, and licenses submitted: _____

Approximate amount of material removed: (units: square feet) _____

Walls _____ Floor _____ Ceiling _____ Carpet/pad _____

Other materials _____

Approximate amount of material cleaned: (units: square feet)

Walls _____ Floor _____ Ceiling _____ Carpet/pad _____

Other materials _____

Were construction wastes properly bagged and sealed at the source and removed from the property for appropriate disposal? _____

All affected surfaces were cleaned or removed, and proper disinfecting was spray-applied, in accordance with contract. Surfaces were checked for remaining mold. _____

General repairs were completed to prevent future water damage/accumulation. _____

Building was left in a clean condition. _____

Name

Title

Contractor's license

APPENDIX B
TRAINING PROGRAM

AWARENESS TRAINING FOR CUSTODIAL AND MAINTENANCE PERSONNEL

Purpose: To provide participants with a basic understanding of the characteristics of Mold/Water Damage, how mold grows and spreads, health-related concerns, and how to avoid inadvertent exposure.

Learning Objectives: After completing this session participants should be able to:

- 1) Provide a general definition of Mold.
- 2) Define spores.
- 3) Describe the unique properties of Mold.
- 4) Describe the common areas for Mold Growth.
- 5) Describe the health effects associated with Mold exposure.
- 6) Recognize a potential health hazard.
- 7) Understand the general in-house procedures for handling Mold/Water Damage materials.
- 8) Know the name and telephone number of the Facility Mold/Water Damage Coordinator.

Topic Outline

- 1) Characterization of Mold/Water Damage
 - a) Definition of Mold, examples of various species
 - b) Description of potential health affects
 - c) Descriptions of Mold lifecycle
- 2) Health-Related Concerns
 - a) Diseases associated with Mold exposure
 - b) Allergic Responses
 - c) Defense mechanisms of the body
- 3) Recognition of Potential Hazards
 - a) Water Damage
 - b) Presence of Mold
 - c) Other
- 4) Site-Specific Information
 - a) Primary locations of areas potentially affected by Water Damage at the Subject Property
 - b) How to avoid moisture buildup and emergency water releases
- 5) Overview of the Subject Property's Operations and Maintenance Plan and Mold/Water Damage Control Program
 - a) Description of Mold/Water Damage-related work procedures
 - b) Plans for future
 - c) Where to go for more information
- 6) Questions and answers

**TRAINING PROGRAM FOR
OPERATIONS AND MAINTENANCE STAFF**

EXAMPLE AGENDA

Awareness Training

8:30-8:50	Characterization of Mold/Water Damage.....	20 Minutes
8:50-9:20	Health Effects of Mold/Water Damage	30 Minutes
9:20-9:50	Recognition of Water Damage and Areas of Surface Mold	30 Minutes
9:50-10:10	Break.....	20 Minutes
10:10-10:50	How to Prevent Water Damaged Areas from becoming Mold	40 Minutes
10:50-11:20	Overview of Facility's Operations & Maintenance Plan/ Mold/Water Damage Control Plan	30 Minutes
11:20-11:30	Questions and Answers	10 Minutes

APPENDIX C

WORK PERMIT SYSTEMS FORMS

APPENDIX C

WORK PERMIT SYSTEM FORMS

Work Permit Form for Maintenance Work C-1

Work Permit Log..... C-2

Contact List..... C-3

Equipment Purchasing..... C-4

WORK PERMIT FORM FOR MAINTENANCE WORK

NAME:

DATE:

TELEPHONE NUMBER:

1. Address, building, and room number(s) (or description of area) where work is to be performed:

2. Requested starting date:
Anticipated finish date:

3. Description of work:

4. Description of any Mold/Water Damage materials that might be affected, if known (include location and type):

5. Name and telephone number of requester:

6. Name and telephone number of supervisor:

Submit this application to: (the Facility Mold/Water Damage Coordinator)

NOTE: An application must be submitted for all maintenance work regardless of whether Mold/Water Damage-containing materials might be affected. An authorization must then be received before any work can proceed.

REQUESTER SIGNATURE:

DATE:

SUPERVISOR'S SIGNATURE:

DATE

GRANTED: (JOB REQUEST NO. _____)

DATE

DENIED:

DATE

FACILITY MOLD/WATER DAMAGE COORDINATOR
SIGNATURE:

DATE

WORK PERMIT LOG

WORK PERMIT NO.	REQUESTED BY	ROOM	START DATE	COMPLETION DATE	APPROVED

Contact List

Maintenance staff and management must be prepared to deal with water intrusion and mold events as they occur. The MMP must include up-to-date information on resources that are not readily available on site.

Contact at Servicer

For questions about implementing the Moisture Management Plan, and for notification of mold growth that cannot be addressed by in-house maintenance staff:

Name: _____

Phone: _____

Address: _____

Mold Remediation Assistance

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

Company: _____

Contact Name: _____

Phone: _____

Company: _____

Contact Name: _____

Phone: _____

Rental Equipment

Access to special equipment not kept on site, such as blowers and dehumidifiers:

Company: _____

Phone: _____

Equipment Available: _____

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: _____

Company: _____

Phone: _____

Equipment Available: _____

APPENDIX D
TEXAS DEPARTMENT OF STATE HEALTH SERVICES (TDSHS)
CONSUMER MOLD INFORMATION SHEET



CONSUMER MOLD INFORMATION SHEET* Regulation of Mold Assessment and Remediation in Texas

*State law [25 TAC 295.306(c)] requires a licensee, except for a mold analysis laboratory, who is overseeing mold-related activities, to give each client a copy of this **Consumer Mold Information Sheet** before starting any mold-related activity.

How are businesses that do testing for mold or mold cleanup regulated?

Such businesses are now regulated by the Department of State Health Services (DSHS), based on legislation passed in 2003 ([Texas Occupations Code, Chapter 1958](#)). Under the **Texas Mold Assessment and Remediation Rules (Rules)** ([25 TAC §§295.301-295.338](#)), all companies and individuals who perform mold-related activities will have to obtain appropriate licensing from the department by January 1, 2005. Applicants must meet certain qualifications, have required training and pass a state exam in order to receive their licenses. Mold remediation workers must have training and be registered with the department. Laboratories that analyze mold samples must also be licensed and meet certain qualifications. The rules set minimum work standards that licensees must follow and require them to follow a code of ethics. To prevent conflicts of interest, the rules also prohibit a licensee from conducting both mold assessment and mold remediation on the same project.

How can I know if someone is licensed?

A licensed individual is required to carry a photo ID issued by the department with a license number on it. The names of currently licensed companies and individuals are available on the Mold Licensing Program website at: www.tdh.state.tx.us/beh/mold.

What is “mold assessment?”

Mold assessment involves an inspection of a building to evaluate whether mold growth is present, and to what extent. Samples may be taken to determine the amount and types of mold that are present; however, sampling is not necessary in many cases. A mold assessment consultant is responsible for developing a **mold remediation protocol**, that specifies the estimated quantities and locations of materials to be remediated, the proposed methods to use and clearance criteria that must be met.

What is meant by “clearance criteria?”

Clearance criteria refer to the level of “cleanliness” that is to be achieved by the persons conducting the mold clean up. It is very important that you understand and agree with the assessor prior to starting the project what an acceptable clearance level will be, including what will be acceptable results for any air sampling or surface sampling for mold. There are no national or state standards identifying a “safe” level of mold. Mold spores are a natural part of the environment that are always present at some level in the air and on surfaces all around us. See below for more information about **post-remediation assessments**.

What is “mold remediation?”

Mold remediation is the clean up and removal of mold growth from surfaces and/or contents in a building. It also refers to actions taken to prevent mold from growing. **Mold remediators** must follow the **mold remediation protocol** described above and their own **mold remediation work plan** that provides specific instructions and/or standard operating procedures for how the project will be done.

Before a remediation project can be deemed successful, a **post-remediation assessment** must be conducted by a **mold assessment consultant**. This is an inspection to ensure that the work area is free from all visible mold

and wood rot, the project was completed in compliance with the remediation protocol and remediation work plan, and meets all clearance criteria that were specified in the protocol. The assessment consultant must give you a **passed clearance report** documenting the results of this inspection. If the project fails clearance, further remediation as prescribed by a consultant will be necessary.

What is a Certificate of Mold Remediation?

No later than 10 days after a mold remediation job has passed a clearance inspection, the remediation contractor is required to give you a **Certificate of Mold Remediation**. This certificate must also be signed by the licensed **mold assessment consultant** who conducted the post-remediation assessment. The consultant is required to state on the certificate that the mold contamination identified for the project has been remediated and whether or not the underlying cause of the mold has been corrected. (That work may involve other types of professional services that are not regulated by these rules, such as plumbers or carpenters.) Receiving a **Certificate of Mold Remediation** documenting that the underlying cause of the mold was remediated is an advantage for a homeowner. This certificate prevents an insurer from making an underwriting decision on the residential property based on previous mold damage or a claim for mold damage. If you later sell your property, the law requires that you provide the buyer a copy of all **Certificates of Mold Remediation** you have received for that property.

How is a property owner protected if a mold assessor or remediator does a poor job or actually damages the property?

The rules require licensees to have commercial general liability insurance in the amount of \$1 million, or be self-insured, to cover any damage to your property. Before hiring anyone, you should ask for proof of such insurance coverage. You may wish to inquire if the company carries additional insurance, such as professional liability/errors and omissions (for consultants) or pollution insurance (for contractors), that would provide additional recourse to you, the consumer, should the company fail to perform properly.

How is my confidentiality protected if I share personal information about myself with a company?

The code of ethics in the rules states that licensees are required to the extent required by law, to keep confidential any personal information about a client (including medical conditions) obtained during the course of a mold-related activity. If you desire more privacy, you may be able to negotiate a contract to include language that other personal information be kept confidential unless disclosure “is required by law.” However, licensees are required to identify dates and addresses of projects and other details that can become public information.

How do I file a complaint about a company?

Anyone who believes a company or individual has violated the rules can file a complaint with the Department of State Health Services. For more information on this process and to obtain a complaint form, call (800) 293-0753, or download the complaint form at www.tdh.state.tx.us/beh/mold.

Can property owners do mold assessment or remediation on their own property without being licensed?

Yes. A homeowner can take samples for mold or clean up mold in his own home without a license. An owner, or a managing agent or employee of an owner of a residential property owned by that person is not required to be licensed, **unless** the property has 10 or more residential dwelling units. For non-residential properties, an owner or tenant, or a managing agent or employee of an owner or tenant, is not required to be licensed to do mold assessment or remediation on property owned or leased by the owner or tenant, **unless** the mold contamination affects a total surface area of 25 contiguous square feet or more. Please refer to 25 TAC 295.303 for further details on exceptions and exemptions to licensing requirements.

Where can I get more information?

For more information about mold and the Texas Mold Assessment and Remediation Rules, please visit the Mold Licensing Program website at www.tdh.state.tx.us/beh/mold, or contact program staff at 512-834-4509 or 800-293-0753.