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Client: Brendon Northern bsnothern@yahoo.com 346-267-5981

Re: 6628 Bayou Glen, Houston, Texas

# **MOLD REMEDIATION PROTOCOL**

Aggie Inspector Group LLC (AIG) is pleased to present the results of the Mold Evaluations conducted on 1-23-24 and **1-30-24** <u>These findings are the basis for the Mold Remediation Protocol of the residence at that time of the assessments.</u> This protocol is to be utilized for the proper removal, transportation and disposal of mold damaged materials from the above referenced homes. This project is tentatively scheduled to begin five days following notice to proceed from Owner, and to be performed as required to meet the owner's schedule and within Contractor's time proposed.

Note: <u>The scope of this protocol must be discussed with the mold remediation contractor prior to</u> <u>start of work to insure that the scope is understood</u>. This scope will expand if additional mold conditions are discovered as a result of selective demolition or additional testing and wall cavity samples.

\*\*If the selected mold remediation contractor can provide AIG any suggestions that would adjust the scope of work and reduce the cost of this remediation without compromise of safety or results, AIG will consider amending the mold remediation protocol accordingly.

\*\*\* This inspector requires that any open walls remain open and not covered with plastic prior to the clearance assessment. This inspector must see the potential water damaged surfaces that have been sanitized and must take air samples from spaces with the walls open.

#### Appendix

If you have any questions, please do not hesitate to call us at 832-865-9218

Joe D. Ecrette Jr. MAC #1374 expires 5/15/24



1-30-24



#### SUMMARY OF SPECIFIC INSTRUCTIONS FOUND WITHIN THIS PROTOCOL

- 1. NOTICE: Aggie Inspector Group LLC must be provided with a copy of the Remediation Contractor's Work Plan per State Guidelines in order for the Mold Assessment Consultant to determine whether the remediation will been completed in accordance with this Protocol.
- 2. NOTICE: Once the surfaces inside the containments have been treated, the remediation contractor will activate 1ea. IGR -100 gr. CLo2 gas generation packs within EACH containment. Manufactured by www.clo2deliverysystems.com During the gassing it is imperative that the relative humidity within the containments be at 65% or higher only during the gas sanitization effort. Place the gas packs 3 ft above the floor to activate. The gas is heavy and needs air movement in the room. Do not activate over carpet unless it is covered with plastic. OPEN ALL CABINETS AND DRAWERS DURING GASSING.
- 3. NOTICE: The use of EPA registered biocides or disinfectants may be used on affected surfaces as part of the disinfection and cleaning process. Chlorine Dioxide is preferred because it is cost effective and leaves zero toxicology on treated surfaces.
- 4. NOTICE: Under no circumstance should any antifungal primers be applied to any surfaces that would obstruct the consultants view of water or mold damaged framing. Clear sealants are authorized similar to Fiberlock Aftershock Fungicidal Coating or DeOdorPro CoverShield. Note: If DeodorPro CoverShield biostatic antimicrobial is applied to all surfaces that have been cleaned and disinfected no other fungicidal primer is needed to prevent odors or ongoing mold growth.
- 5. NOTICE: The steps outlined here are the minimum steps required for remediation. A remediation con tractor may take additional or varied steps as dictated by their judgment and/or operating procedures to adequately abate the mold contamination. In mold remediation situations, it is always possible that additional hidden mold growth may exist in the walls beyond the areas investigated.
- 6. NOTICE: Under no circumstance should any microbial coating , encasement material or primers be applied to any surfaces within remediated walls prior to the Post-Remediation Inspection and Clearance Testing unless approved by the Mold Assessment Consultant.
- 7. NOTICE: Under no circumstances should any exterior walls or interior walls that have been remediated be covered and sealed with plastic. This effort blocks the inspectors view and could separated mold damaged areas from the air quality testing within the working containment.
- 8. NOTICE: Contractor agrees ,that by accepting this protocol, if the first clearance test does not pass, the remediation contractor will pay the consultant for future testing until clearance is reached.
- 9. NOTICE: Block supply and return air vents within containment area.



# **Table of Contents**

Section 1.0 - Project Background	4
1.1 Site Description	4
1.2 Initial Observations and Findings	4
1.3 Initial Microbial Sampling Results	4
Section 2.0 - Regulations and Notices	5
2.1 Texas Mold Assessment and Remediation Regulations	5
2.2 TAHPR – Texas Asbestos Health Protection Rules	5
2.3 TAHPR – Texas Asbestos Health Protection Rules for Single Family Homes:	5
Section 3.0 - Remediation Specification	6
3.1 Water Intrusion and Moisture Issues to be Repaired/Corrected:	6
3.2 Specific Remediation Instructions	6,7,8
3.3 Specific Remediation Instructions for the HVAC System	
3.4 Remediation Project Scope Definition	10,11
3.5 General Guidelines for Successful Mold Remediation	12,13
Section 4.0 - Containments	14
4.1 Create a Limited Containment for each affected area	14
4.2 Seal HVAC supply vents and/or return air vents in remediation area(s)	14
4.3 HEPA Filtration	14
Section 5.0 - Personal Protective Equipment (PPE)	14
5.1 PPE	14
Section 6.0 - Post-Remediation Assessment and Clearance Criteria	15
6.1 Visual Inspection	15
6.2 Sampling	15
6.3 Clearance Criteria	15,16
Section 7.0—Mold Inspection Methodology	17
7.1 General Methodology	17
7.2 Laboratory Services	17
7.3 Relative Humidity Readings	18
7.4 Moisture Content Readings	18
7.5 Limitations	18
Section 8.0 -Clean up methods ,PPE, Containment	



## Section 1.0 - Project Background

#### 1.1 Site Description

- **1.1.1** Construction Type Slab on Grade, Brick veneer & wood siding veneer, below a parking structure.
- **1.1.2** Building Type One story. Residential property.
- **1.1.3** Scope Mold remediation ,surface cleaning and disinfection in exterior wall cavities and within ceiling fur downs.
- 1.2 Initial Observations and Findings –See attached reports dated 1-27-24 and laboratory findings from 2 assessments.

#### 1.3 Initial Microbial Sampling Results

Sample collection and analyses were performed according to *Minimum Work Practices and Procedures for Mold Assessment of the Texas Mold Assessment and Remediation Rules.* 

**1.3.1** Surface Samples Collected— 1





## Section 2.0 Regulations and Notices

### 2.1 Texas Mold Assessment and Remediation Regulations

Remediation should be performed to the standards found in IICRC S520, Standard and Reference Guide for Mold Remediation, and in accordance with the laws of the state of Texas. In accordance with the Texas Mold Assessment and Remediation Rules (Rules), 16 Tex. Admin. Code, Chapter 78,a qualified licensed Remediation Contractor must be consulted for the proper removal of contaminated material and cleaning when the mold contamination affects a total surface area of more than 25 contiguous square feet. It is critical that licensed, trained, and qualified mold remediation professionals perform the clean-up work. In addition, state notification requirements are triggered if more than 25 contiguous square feet of mold contamination material is affected in any one area. These requirements require 5-day notification prior to remediation. Contaminated materials should be removed using appropriate containment and removal practices in accordance with the Rules. Proper engineering controls must be in place to prevent the further spreading of airborne mold spores.

## 2.2 TAHPR – Texas Asbestos Health Protection Rules

The current Texas Asbestos Health Protection Rules (25 TAC § 295.31 -.73) require that an asbestos survey be performed by Department of State Health Services licensed persons prior to the commencement of renovation or demolition activities that could disturb asbestos-containing materials within a public building. Materials such as sheet rock, sheet rock texture and joint compound, ceiling texture/ acoustical materials, flooring materials, ceiling tiles, as well as vinyl flooring products and adhesives can contain asbestos.

## 2.3 TAHPR – Texas Asbestos Health Protection Rules for Single Family Homes:

Single family dwellings, that are to remain single family dwellings, do not fall under the definition of a "public building" as defined in the Texas Asbestos Health Protection Rules (TAHPR). Therefore, TAHPR does not require suspect materials to be sampled prior to disturbance or removed. However, federal Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) regulations concerning asbestos do apply, and any contractor that will disturb the material must be advised that it contains asbestos. Materials such as sheet rock wall and

ceiling systems, flooring materials and mastics, and ceiling tiles, are just some examples of materials that could contain asbestos. In these cases, the responsibility to prove or disprove the presence of asbestos falls on the employer.

NOTE: Should significant variance from the instructions contained within this Protocol be required or other issues regarding remediation develop, the Remediation Contractor should first communicate with the Mold Assessment Consultant in order to determine further scope of work procedures. The steps outlined in this protocol are the minimum steps required for remediation.



## Section 3.0 — Remediation Specification

### 3.1 Water Intrusion and Moisture Issues to be Repaired/Corrected:

 The primary cause of the mold growth inside the utility room exterior wall and surfaces within the ceiling fur down over the East and rear side of the home, was a long term exposure to hot humid clothes dryer air that was not exhausting the interior but was being discharged into wall cavities and fur down spaces above ceilings.

### 3.2 Specific Room/Area Remediation Instructions.

- 1. **Study**: Remove ceiling ,clean and disinfect exposed surfaces including surfaces of the ductwork above the ceiling . Remove the exterior wall clean and disinfect exposed surfaces. Study closet, remove ceiling, exterior wall and closet side of the study closet.
- 2. Utility Room: Remove ceiling ,clean and disinfect exposed surfaces including surfaces of the ductwork above the ceiling . Remove the exterior wall clean and disinfect exposed surfaces. Common wall with bathroom, remove wall , floor to ceiling, clean and disinfect.
- 3. Small middle bath: Remove ceiling ,clean and disinfect exposed surfaces including surfaces of the ductwork above the ceiling . Remove the exterior wall from corner to edge of shower, clean and disinfect exposed surfaces. Pull out insulation behind the tiled shower exterior wall from the top. Spray disinfectant and biostatic antimicrobial— CoverShield down into the open wall areas behind the tile on all sides of the tiled shower. Remove drywall wall above the vanity which is a wall with master bathroom, disinfect open wall arears behind the vanity.
- 4. **Master bath** : Remove ceiling ,clean and disinfect exposed surfaces including surfaces of the ductwork above the ceiling . Remove the exterior wall over top of vanity from corner edge of shower to the end of vanity, clean and disinfect exposed surfaces. Spray disinfectant and biostatic antimicrobial— CoverShield -down into the open wall voids behind the tile on all sides of the tiled shower. Push Clo2 gas into the wall cavity space behind the exterior tiled shower from holes in metal stud top plate prior to gassing the entire zone. After gassing the wall voids in back of the shower tile. Seal of openings in the top plate of the metal stud assembly in order to encapsulate any residual mold within the walls behind the tile.
- 5. **Master Toilet closet:** Remove ceiling ,clean and disinfect exposed surfaces including surfaces of the ductwork above the ceiling . Remove the exterior wall in back of the toilet and the south facing wall next to parking. Clean and disinfect.
- 6. Hallway fur down, master bedroom w closet and middle bedroom w closet: Remove ceiling, clean and disinfect exposed surfaces including surfaces of the ductwork above the ceiling. Remove exterior wall adjacent to parking in master bedroom.





## Section 3.0 - Remediation Specification — continued

- 7. **Demising walls between the bedrooms and hallway:** Remove one side ,clean and disinfect exposed surfaces.
- 8. Ceiling and fur down space above entry door, over bar and over kitchen: Per attached drawing the are as effected most by mold damage are in the rear 3/4 of the building. The areas of removed ceilings should be sealed off with plastic from the air space above the entry, living room, kitchen and pantry. This segregated space should be sprayed down or fogged with Cl02 disinfectant then significantly gassed with CL02 and sealed off from the open areas of the home. Early testing did not reveal elevated mold in these areas furthest away from the laundry room.
- 9. Exposed metal stud framing and spaces in the exposed wall section are to be HEPA vacuumed, cleaned and disinfected in a 3 step process. A) Spray accessible surfaces with an application of RMR 86 Pro—mold stain remover, B) Spray all surfaces with a consistent coating of DeOdorPro—Liquasan -liquid chlorine dioxide at 200 PPM strength mold remover. C) Spray and evenly coat all accessible surfaces with DeOdorpro CoverShield—biostatic antimicrobial to help protect surfaces from future mold growth. Both Cl02 liquid and CoverShield that can be acquired at www.clo2deliverysystems.com. Mold consultant is to be notified when the gas will be employed so that he may schedule a clearance.
- 10. Following the gas activation procedures very carefully. A) Carefully add hot tap water to the tray on side of the sponge to the fill line per the published manufactures instructions. B) Lay the sponge chemical generator, blue side down. This CL02 gas treatment must be started in the late evening at dusk to avoid exposure to sunlight. No people or pets can be in the isolated room during the treatment duration.

Following the gas activation procedures very carefully. A) Carefully add hot tap water to the tray on side of the sponge to the fill line per the published manufactures instructions. B) Lay the sponge chemical generator, blue side down. This CL02 gas treatment must be started in the late evening at dusk to avoid exposure to sunlight. No people or pets can be in the isolated room during the treatment duration.

11. Once the surfaces inside the containments have been treated, the remediation contractor will activate a minimum of 1ea. IGR -100 gr. CLo2 gas generation packs within EACH containment. Manufactured by www.clo2deliverysystems.com *During the gassing it is imperative that the relative humidity within the containments be at 65% or higher only during the gas sanitization effort*. Place the gas packs 3 ft above the floor to activate. The gas is heavy and needs air movement in the room. Do not activate over carpet unless it is covered with plastic. OPEN ALL CABINETS AND DRAWERS DURING GASING.



## Section 3.0 - Remediation Specification — continued

- 12. Air scrubbers can be used during the selective demolition and disinfection process but they need to be turned off within each containment during the gas treatment for the space. This inspector recommends that the contained areas be treated overnight , prior to gassing, with a high quality air purifications device which is proven to reduce mycotoxins, such as the GreenTech Environmental Active HEPA with OD-Ogard device.
- 13. Following the gas activation procedures very carefully. A) Carefully add hot tap water to the tray on the side of the sponge to the fill line per the published manufactures instructions. <u>B) Lay the sponge chemical generator, blue side down.</u> This CL02 gas treatment must be started in the late evening at dusk to avoid exposure to sunlight. No people or pets can be in the isolated room during the treatment duration.
- 14. Very important: A Small fan, turned on low speed ,should be placed within each containment to move the air with gas around the containment over night. *Do not direct the fan in the direction of the gas generator.* Any doors, drawers and cabinets within the containment need to be open so the gas can find pathogens and odors to deactivate. This gas takes time to activate, no need to run out of the containment. Use 1ea. 100 gr. Gas pack for every 300 sf of floor area in the home. This effort will pull the Clo2 gas through the duct work to additionally sanitized and deodorize the home. It is imperative to elevate the Relative Humidity within the home when being treated with gas. **The elevated Relative Humidity is very important for the gas to be most effective. Add moisture to surfaces or air in the room/ containment to be gassed.**
- 15. The final step of gassing the containments should be done on the evening before the scheduled clearance testing. Sun weakens the gas. Do not enter the containments until the next morning or air out the containments until the space has been tested for clearance by the consultant. Keep doors and windows closed in the home.
- 16. As a part of this remediation all other rooms in the home need to have all hard surfaces cleaned and wiped down with liquid CLo2. After the home is cleaned and wiped down the entire home should be gassed with CLo2 at the same time as the primary containment is gassed. The AC fan should be left on to circulate the gas thru the duct work overnight.
- 17. The final step of gassing the containments should be done on the evening before the scheduled clearance testing. Sun weakens the gas. Do not enter the containments until the next morning or air out the containments until the space has been tested for clearance by the consultant. Keep doors and windows closed in the home.





# 3.3 — Specific Remediation Instructions for the HVAC System and to reduce existing levels of mold in the other rooms of the home.

18. Confirm that the evaporator coil is clean. Confirm that the interior surfaces of both the supply and return air plenums are clean and free of dust and mold. Confirm that the duct work and surfaces behind the AC registers in the ceiling area are clean. If they have not been cleaned recently these surfaces should be included in the scope of work.

NOTICE: The use of EPA registered biocides or disinfectants may be used on affected surfaces as part of the disinfection and cleaning process..

HOWEVER, under no circumstance should any antifungal primers be applied to any surfaces that would obstruct the consultants view of water or mold damaged framing. Clear sealants are authorized similar to Fiberlock Aftershock Fungicidal Coating or DeOdorPro CoverShield. Note: If DeodorPro CoverShield biostatic antimicrobial is applied to all surfaces that have been cleaned and disinfected no other fungicidal primer is needed to prevent odors or ongoing mold growth.





AIG Project # 1304

## 3.4 — Remediation Project Scope

CONTRACTOR TO FIELD VERIFY SURFACE AREAS





AIG Project # 1304

### 3.4 — Remediation Project Scope







## 3.5 General Guidelines for Successful Mold Remediation

- 1. Set up Limited Containment (s) and critical barriers where needed to prevent contamination and dust control of unaffected spaces during remediation processes. Establish negative pressure and maintain until Clearance. (See TMARR and EPA Guidelines)
- 2. Wear proper Personal Protection Equipment. (See TMARR and EPA Guidelines)
- 3. Remove contaminated and water-damage materials when feasible. When removing wall/ceiling surfaces, cabinetry, or baseboards, the underlying cavities and building materials should be inspected for additional hidden mold growth. Contaminated wall/ceiling surfaces and other materials should be removed, if feasible, at least one foot in all directions past the last appearance of mold growth. Any moldy or water damaged non-structural building materials must be removed and disposed of. Mold and water damaged materials should be immediately placed in plastic bags or wrapped and sealed for disposal.
- **4.** Remove and dispose of any insulation where mold contamination is visible and where damaged sheet rock has to be removed.
- If materials are wet, dry all materials. Wood materials should be 15% moisture content or less.
   Mechanical dehumidification equipment should be used if materials will not be completely dry within 48 hours.
- 6. Clean any mold growth found on structural surfaces and within the exposed cavities. This process typically involves the use of HEPA vacuums then spray surfaces with liquid sodium hypochlorite equal to RMR 86 Pro Mold Stain Remover sold on Amazon and at big box stores.
- 7. Clean in-place structurally sound framing, flooring, ceiling joists, metal and other wood structures by spraying surfaces with a Sodium Hypochlorite product equal to RMR Mold Stain Remover. This treatment must remove all fungal growth from the affected materials or the materials must be removed and replaced whenever structurally feasible. Clean/remove mold growth from any non-porous surfaces such as metal or glass or painted/sealed wood which is not water-damaged or wet. Water damaged structural materials must be removed and replaced whenever feasible. (See EPA Guidelines)
- 8. HEPA vacuum all surfaces.
- **9.** Wipe down or spray all surfaces with a Liquid Chlorine Dioxide mold remover at 200 ppm strength similar to Liquasan and then spray with an EPA registered biostatic antimicrobial like DeOdorPro CoverShield. www.clo2deliverysystems.com
- **10.** Reduce airborne particulate concentrations inside the contained area(s) or affected areas to normal levels. Scrub air using HEPA filtration units. Time allowed for scrubbing should be determined by the CFM ratings of the units being used and the corresponding sizes of the contained and/or affected areas.



## 3.5 - General Guidelines for Successful Mold Remediation—continued

NOTE: The steps outlined here are the minimum steps required for remediation. A remediation contractor may take additional or varied steps as dictated by their judgment and/or operating procedures to adequately abate the mold contamination. In mold remediation situations, it is always possible that additional hidden mold growth may exist in the walls beyond the areas investigated.

- 1. Should significant variance from the above recommendations be required or other issues regarding remediation arise, the remediation contractor should first obtain concurrence from the Mold Assessment Consultant who performed the initial inspection and wrote this report.
- If greater than 25 square feet of contiguous mold impacted materials are uncovered during the project, the remediation contractor will have to stop the project. At which time, a Mold Remediation Protocol will be required before the remediation contractor can finish the job.

# NOTICE:

The use of EPA registered biocides or disinfectants may be used; however, under

no circumstance should any microbial coating or encasement material or primers be applied to any surfaces within walls prior to the Post-Remediation Inspection and Clearance Testing unless approved by the Mold Assessment Consultant.

# Notice:

Under no circumstances should any exterior walls or interior walls that have been remediated be covered and sealed with plastic. This effort blocks the inspectors view and could separated mold damaged areas from the air quality testing.





### Section 4.0 - Containments

## 4.1 Create a Limited Containment for each affected area as required to prevent dust control.

Install barriers of 6-mil flame retardant polyethylene sheeting with a slit entry and covering flap or with zippered entry. Install a single stage decontamination chamber at the entry to the containment. Install critical barriers over all openings/penetrations, lights, vents, outlets, etc. Place sheets of poly in the areas where workers will be walking through the structure.

NOTE: The containment (s) should be maintained under negative air pressure with a HEPA filtered fan unit between areas indoor that need remediation and unaffected areas of the structure to contain mold spores and dust/debris. If negative air pressure is lost, stop work and reestablish negative air before continuing. The containment or work area(s) should be unoccupied by non-remediation company workers during remediation activities.

### 4.2 Seal HVAC supply vents and/or return air vents in remediation area(s)

If HVAC system may be affected, **supply vents should be sealed within containments after ducts are cleaned and prior to material being remediated then sealed off.** The HVAC unit(s) should remain off during remediation operations.

#### 4.3 HEPA Filtration

After all remediation operations are complete inside the containment(s), 1 or more of the HEPA filtration units can be changed to the scrub mode, but negative pressure must be maintained. Time allowed for scrubbing should be determined by the remediation contractor and should be based on the CFM ratings of the units being used and the corresponding sizes of the contained and/or affected areas. Per the TMARR, the containment(s) must remain under negative pressure until it/they are deemed Clear by the Mold Assessment Consultant.

## Section 5.0 - Personal Protective Equipment (PPE)

The EPA Guidelines for Remediation of Building Materials with Mold Growth by Clean Water for requirements of PPE should be followed.

#### 5.1 PPE

Review USEPA Table 2 for proper PPE with regard to the scope of the work and amount of impacted material to be removed.





## Section 6.0 - Post-Remediation Assessment and Clearance Criteria

Once the remediation has been completed, in order for the contaminated area(s) to achieve Clearance, a Post Remediation Inspection must be performed along with the collection and analysis of an appropriate number of samples.

Aggie Inspector Group LLC must be provided with a copy of the Remediation Contractor's Work Plan in order for the Mold Assessment Consultant to determine whether the remediation will been completed in accordance with this Protocol.

### 6.1 Visual Inspection

A thorough visual inspection of the containment area(s) or remediation areas will be performed. All areas should be left dry and visibly free of all visible microbial contamination and debris. Containments must remain in place and put back into negative pressure after Clearance Testing is complete and final Lab Results are revealed.

## 6.2 Sampling

The sample analysis must reveal no mold growth on any surface sampled and airborne mold counts must be similar to outdoor air for corresponding mold types and total indoor air mold spore concentrations must be significantly lower than outdoor mold spore concentrations. IICRC S520 Clearance Standards apply.

- 1. One air sample from the work area containment where mold was previously detected (one per zone).
- 2. One indoor control air sample from inside the property outside of the containment(s) or work area(s).
- **3.** If applicable, one to two surface sample(s) per affected area where mold growth was previously observed.

4. One outdoor air sample required as a baseline for the Lab.

## 6.3 Clearance Criteria

- The Clearance Investigation and Testing is conducted when mold remediation and cleanup efforts are completed but before containment is removed and renovation activities have begun.
- The purpose of the clearance investigation is to ensure that remediation activities have been completed as outlined in the Remediation Protocol, containment has been maintained, all dust and debris have been removed from the containment areas, and no malodors or visible mold is present.
- Clearance testing consists of a visual assessment for mold problems in area(s) of remediation activities and the collection/analysis of a tape /swab lift sample and an air quality test in these designated area(s). Clearance is defined as tape / swab and air samples collected indoors being significantly less than outdoor samples, and qualitatively similar. There are no exposure limits for the swab or tape lift sample.



#### Section 6.0 - Post-Remediation Assessment and Clearance Criteria

#### 6.3 Clearance criteria — continued

- The samples are sent to an accredited laboratory, which will analyze them for the presence of mold. The lab will then issue a report detailing the presence and types and quantities of mold as per sample analysis protocols.
- Acceptable clearance is reached when air and swab/tape life samples collected indoors ,outside of the containment ,being quantitatively significantly less than the outdoor sample, and qualitatively similar. As a general rule acceptable clearance of a containment area is reached when the genus of fungi collected from the containment using the (Allergenco Cassette\*) are significantly less than outdoor air and not to exceed 2,000 spore per m3.
- Marker spores such as <u>Chaetomium or Stachybotrys (which are indicators of indoor mold grow) that are</u> <u>measured at more than 2 raw spores in the air test will result in the area not being cleared</u>. Lower or higher levels of fungi indoors of different genera from outdoors can indicate contamination of interior substrates.
- Specifically, This inspector requires that the total average spore counts per cubic meter (m3) of air in the containment area should not exceed 2,000, and a single spore category should not exceed 500. In addition, the rank order and type of organism identified may indicate interior contamination and related need for additional action.
- Contractor agrees that by accepting this protocol as the scope of work if the first clearance test does not pass, the remediation contractor will pay for future testing until clearance is reached.
- If the containment area has dust, debris, breached containment, lack of quality control related to remediation specifications the inspector will not conduct further clearance activities. The client will be informed of observed project deficit concerns for communication with the mold remediation contractor. In addition, if visible mold is present, a tape lift and swab sample is collected for lab analysis.
- Clearance microbial sampling protocols and remediation specifications are based on numerous sources including: USEPA (2001), Mold Remediation in Schools and Commercial Buildings (EPA Pub. No. 402-K-01-001). Washington, D.C.:





## Section 7.0 - Mold Inspection Methodology

#### 7.1 General Methodology

Aggie Inspector Group LLC. performed an initial Limited Mold Assessment at the subject property in accordance with generally accepted professional practices.

A Limited Mold Assessment normally includes the following:

- Visual inspection focused on the discovery of signs of mold growth and moisture intrusion
- Use of a moisture meter to help locate areas of actively wet building materials and to test suspect areas
- Collection of microbial samples requested by client and submission of samples to a qualified microbiology lab for analysis
- Provision of a written report of the limited mold inspection findings and, where applicable, a lab report of the sample analysis

### 7.2 Laboratory Services

Microbial samples collected by AIG are submitted under chain of custody to a Texas licensed laboratory. Fungal analysis Laboratories in Texas must be licensed by the Texas Department of Licensing and Regulation. The laboratory's report is included as an attachment to this report.

## 7.2.1 Methodologies

*Air Samples* – Air sampling for total fungi is designed to count and identify the presence of total fungal material (i.e. culturable and non-cultureable spores) in a measured volume of air. The air samples are collected via the spore trap method with the use of a Allergenco cassette or equal. Airflow through the cassette is produced by an electrically powered air-sampling device set and calibrated to a flow rate of 15 cubic liters per minute. The sample cassettes are then sealed and submitted to the laboratory via a chain of custody for analysis.

*Surface Swab Samples* – Surface swab samples are collected using sterile swabs enclosed in sterile tubes which contain a transport media solution. These samples are collected by moistening the swab with the provided solution and then swabbing the suspect area. The swabs are then inserted into the sterile tubes, sealed, and submitted to the laboratory via a chain of custody for analysis.

*Surface Tape Samples*– Surface tape samples collected using a forensic tape lift kit. These samples are collected by pressing the tape media slide to the surface of a building material. The Bio-Tape slide is then sealed in its included case and submitted to the laboratory via a chain of custody for analysis.





## 7.3 Relative Humidity Readings

**Relative humidity (**RH) readings were obtained from both the interior and exterior of the property. The RH was measured and recorded to determine the potential effect it may have on microbial amplification.

Guidance on RH in occupied buildings is provided by the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) in the ANSI/ASHRAE Standard 62-2001, *Ventilation for Acceptable Indoor Air Quality*. The RH in habitable spaces preferably **should be maintained between 30% and 60%** to minimize the growth of allergenic and pathogenic organisms (e.g., dust mites, fungi and associated mycotoxins).

## 7.4 Moisture Content Readings

A moisture meter was utilized on this project to measure the **moisture content (MC)** of certain building materials (walls, ceilings, flooring, etc.) throughout the structure, especially areas suspect of water intrusion. Measurement and recording of MC is performed to detect building materials containing **unacceptable levels of moisture (greater than 15% MC in wood** or elevated MC in other materials, relative to similar materials in undamaged areas of the structure.

NOTE: When a moisture meter is used in a non-penetrating manner, it is possible to obtain a reading of "Red" even if there is no excessive moisture. This can occur when there are certain types of materials below the surface being measured; such as metal or lumber. Moisture readings should be used as a guide for further testing and investigation.

## 7.5 Limitations

Aggie Inspector Group LLC (AIG) has no knowledge of any hidden or unapparent or adverse environmental conditions of the property, including the presence of mold, hazardous wastes, toxic substances, etc. AIG makes no guarantees or warranties, express or implied, regarding the condition of the property. This report is not an environmental assessment of the property.

This report and associated conclusions are based on the visible conditions of the inspected areas and materials. AIG reserves the right to revise opinions and conclusions if necessary and warranted by the discovery of new or additional circumstances.

This report is specific and limited in nature and shall not be relied on as a statement that no mold exists in this property.





### Section 8.0 - Cleanup Methods

- **Method 1:** Wet vacuum (in the case of porous materials, some mold spores/fragments will remain in the material but will not grow if the material is completely dried). Steam cleaning may be an alternative for carpets and some upholstered furniture.
- Method 2: Damp-wipe surfaces with plain water or with water and detergent solution (except wood use wood floor cleaner); scrub as needed.
- **Method 3:** High-efficiency particulate air (HEPA) vacuum after the material has been thoroughly dried. Dispose of the contents of the HEPA vacuum in well-sealed plastic bags.
- **Method 4:** Discard remove water-damaged materials and seal in plastic bags while inside of containment, if present. Dispose of as normal waste. HEPA vacuum area after it is dried.

## **Personal Protective Equipment (PPE)**

- Minimum: Gloves, N-95 respirator, goggles/eye protection
- Limited: Gloves, N-95 respirator or half-face respirator with HEPA filter, disposable overalls goggles/ eye protection
- Full: Gloves, disposable full body clothing, head gear, foot coverings, full-face respirator with HEPA filter

## **Containment:**

- 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.
- Full: Use two layers of fire-retardant polyethylene sheeting with one airlock chamber. Maintain area under negative pressure with HEPA filtered fan exhausted outside of building.

Block supply and return air vents within containment area.



# Certificate showing this property does not have mold damage Certificate of mold damage remediation

**Property owner:** Keep this certificate and give a copy to your insurance agent or company.

#### **Property owner and location**

Property own	ner's name				
Mailing addr	ess				
Property address					
Lot	Block	Addition or tract _		County	

#### Instructions

- If mold damage has been treated (remediated): Both Box A and B below must be filled out. The mold remediation contractor must fill out Box A. The mold assessment consultant must fill out Box B.
- If no mold damage was found: The mold assessment consultant or insurance adjuster must fill out Box C.
- ▶ Mold damage has been treated (If Box A and B are filled out, Box C does not need to be filled out.):

**Box A:** To be filled out by the mold remediation contractor.

I certify that:

- I treated the damage caused by mold at this property. Treatment can include removing, cleaning, sanitizing, and preventing mold damage.
- I gave this certificate to the property owner within 10 days after completing the work.

Certificate number	Date issued
Mold remediation contractor's signature	Date
Contractor's printed name and address	Date treatment completed
Texas Department of Licensing and Regulation license number	License expiration date

Date

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License expiration date

Box B: To be filled out by the mold assessment consultant.

I certify that:

- Damage caused by mold at this property has been treated (remediated).
- With reasonable certainty, the underlying causes of the mold have been treated so mold will not return.
- I gave a copy of my report to the property owner.

Per Occupations Code Section 1958.154: Based on visual, procedural, and analytical evaluation, the mold contamination identified for the project has been remediated as outlined in the mold management plan or remediation protocol.

Mold assessment consultant's signature

Consultant's printed name and address

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Texas Department of Licensing and Regulation license number

#### ▶ No mold damage was found (If Box C is filled out, Box A and B do not need to be filled out.):

<b>Box C:</b> To be filled out by the mold assessment consultant or insurance adjuster.				
I certify that:				
I inspected this property.				
I did not find signs (evidence) of any mold damage.				
<ul> <li>I gave a copy of my report to the property owner.</li> </ul>				
Certificate number	Date issued			
Mold assessment consultant or insurance adjuster's signature	Date			
Consultant or adjuster's printed name and address				
Texas Department of Licensing and Regulation license number, or Texas Department of Insurance license number	License expiration date			

-21