



Mold Remediation

Qualifications & Proposal Evaluation

Unlike the asbestos abatement industry, the mold remediation industry is largely unregulated. There are no national standards and only a handful of state have defined contractor qualifications. This paper intended to guide the remediation customer through the remediation process to ensure a safe and effective outcome.

Introduction:

The mold remediation industry is a relatively young industry. While many claim expertise in the field, the majority of remediation service companies have been in business for less than five (5) years. The other side of the industry is represented by storm restoration and asbestos abatement companies that entered the market as the demand for mold remediation services increased. However, as we have discussed in the past, bio-decontamination poses unique challenges beyond dehumidification and hazardous material removal.

With no national regulation and little state regulation, there are no industry barriers to entry. There are no mandatory certifications, no permitting or licensing requirements, no municipal oversight or inspection requirements, no insurance or bonding requirements, and no continuing education requirements. Certification and training can be as simple as participating in an on-line course, to classroom training, to extensive field training, to professional certifications.

In addition to little regulation and oversight, there is no universal industry standard for removing fungal biogrowth from our homes, schools, and commercial buildings. Accordingly, contractors are employing a wide range of protocols and technologies to remove mold contamination. Protocols range from scrubbing surfaces with simple bleach and water to dry ice blasting. Unfortunately, the effectiveness of remediation protocols also ranges widely from one protocol to the next.

With little regulation and no industry acceptable standard, evaluating a project scope of work or job quotation is very difficult. In short, there is no “apples-to-apples” evaluation standard. Simply comparing bottom line project costs is not enough. Therefore, the remediation customer must evaluate each project proposal based upon corporate history, contractor qualifications, remediation protocols employed, and workmanship warranties.

Where To Begin?

Mold inspectors and remediation contractors are specially trained to identify and respond to mold contamination. While the phone book can provide a list of vendors advertising in your area, there are several national organizations specifically focused on the mold remediation industry. All of the following organizations provide search engines for locating members:

- Indoor Air Quality Association - www.iqaq.org
- American Industrial Hygiene Association - www.aiha.org
- Institute of Inspection, Cleaning and Restoration Certification - www.iicrc.org
- Mold Inspection Consulting and Remediation Organization - www.moldcareer.com
- National Organization of Remediators and Mold Inspectors - www.normi.org

Minimum Contractor Qualifications:

- Physical Corporate Presence & Appropriate Infrastructure
- Mold Investigator and/or Contractor Certification - IAQA, IICRC, or Equivalent
- Two Years Minimum Experience As A Mold Investigator/Contractor
- Completed A Minimum of 100 Site Investigations
- Completed A Minimum of 50 Remediation Projects With Third Party Clearance
- State Pesticide Applicators License & Corporate Certification
- Professional & Environmental Insurance Coverage
 - AM Best Rating A+ XV
 - Commercial General Liability - \$1.5 million
 - Contractors Pollution Liability - \$1.5 million (Very Important)
 - Professional Liability - \$1.5 million
- Observe Industry Standards & Practices

While flood, fire, and water restoration companies, home inspectors, remodeling companies, and even pest control companies may advertise mold removal services, it is best to select a company that specializes in mold identification and decontamination. Mold contamination is a unique issue and should be addressed by contractors with specific training and extensive industry experience.

What To Expect From An Investigation:

The following information should be included in an inspection report and remediation plan. The inspection report and remediation proposal can be two separate documents, however, collectively they should include:

I. Site Evaluation:

- General Site Assessment - This should include a general description of the property
- Contamination Assessment - Identification and description of contamination sites.
- Moisture Identification - Location and cause for moisture event.
- Contamination Sampling - This should include tape lift and spore trap air sampling for lab analysis.
- Photo Documentation - Document structural deficiencies, contamination sites, meter readings.

II. Defining The Scope of Work:

- Corrective Action - Should outline steps to eliminate/control moisture in contamination area.
- Remediation Plan - Step by step task outline for containment and removal of contamination.

III. Remediation Protocol:

- Remediation Guideline - Should follow IICRC S520 guideline.
- Chemistry Identification - Outline all chemistry used along with EPA registrations and MSDS.
- Site of Origination - All active/dormant sites should be remediated.
- Settled Contamination - Settled contamination within the living space should be removed.
- Inhibitor Specification - Only EPA registered mold inhibitors should be employed.

IV. Warranty of Workmanship:

- Project Warranty - Contractor should provide a minimum of a 1 year warranty.

V. Third Party Validation:

- Project Clearance - A post remediation inspection should be performed by a third party.

Comparing Costs:

Like any other product or service, you get what you pay for. While new biodecontamination technologies can reduce total project costs when compared to traditional methods, there are no shortcuts or magic bullets to mold remediation. Mold remediation is a labor intensive process. This combined with equipment, insurance, and overhead comprises the majority of project expenses. In addition, most companies utilize job costing software that standardizes job costs.

Typically, remediation project costs are within 15% of each other provided that the Scope of Work is similar. Therefore, it is important to compare each vendor quote to ensure the Scope of Work encompasses the full job. If the quotes are more than 15% off, then most likely a vendor has included/excluded certain tasks.

Be aware of extremely low project costs. While we all like a bargain, a low quote can signify a low quality job. If the vendor does a poor job at removing contamination, the surviving mold will quickly amplify once again. A proper remediation job should safely remove the contamination and ensure it will not return.

Other Project Considerations:

Remediation Methods - There are several industry standard remediation protocols that have been proven effective at removing mold from buildings. The basic steps to remediation are as follows:

1. Containment of the Work Area
2. Removal of Water/Mold Damaged Materials
3. Dry Out and/or Dehumidification
4. Removal of Fungal Contamination on Structural Surfaces
5. HEPA Vacuuming and HEPA Air Scrubbing

Traditionally, the physical removal of mold was achieved through abrasive sanding or brushing. This process makes it difficult to reach all cracks and crevices where mold hides. Abrasive removal also aerosolizes contamination potentially spreading spores over a wider area.

To address these issues and provide more effective surface cleaning, new biological decontamination protocols are being used to remove mold. Therefore it is important to understand what protocols will be used on your particular project and to understand the benefits/limitations associated with each.

EPA Registered Chemistry - There are literally hundreds of chemical products on the market claiming mold killing or prevention effectiveness. While many of these products are from the same chemical family (same formula using different labels) there are several products being used today that can pose a significant exposure risk to building occupants if misapplied. Then there are also a handful of products in the industry that are complete unknowns in regards to effectiveness and toxicity.

Virtually every disinfectant and surface cleaner is toxic to some extent. Therefore, the Environmental Protection Agency regulates certain classes of products to ensure they are safe for use and used in a manner that does not harm the public or environment. The general rule of thumb is - if the product makes an antimicrobial claim (kills, prevents, stops, etc) it must be registered with the EPA.

Any product used to kill or prevent mold growth must be EPA registered. The product label must clearly display the EPA registration number. If an antimicrobial or inhibitor product does not have the registration number clearly displayed, DO NOT USE IT.

A Word On Bleach - Bleach is not an effective product for removing mold from porous surfaces. Chlorine bleach is NOT registered with the EPA as a disinfectant to kill mold. In fact, bleach has been shown to actually accelerate the return of mold and bacteria. The Occupational Health and Safety Administration (OSHA) has even gone as far as to issue a special bulletin advising against the use of chlorine bleach for removing mold.

DIY Mold Removal - Mold remediation is not a Do It Yourself weekend project. Disturbing contaminated surfaces releases millions of spores that will quickly spread contamination over a wider area. In addition to creating an exposure concern for the unprotected worker, unconstrained demolition only complicates the remediation process and can significantly increase the project cost. If you suspect you have mold in your home, school, or business, call a professional investigator at once. Exploring or ignoring only leads to bigger problems.

Third Party Expertise - Mold remediation proposals can be daunting to read and understand. Therefore, hiring a third party inspector to supervise the project can be very beneficial. A third party inspector should not be affiliated with the mold contractor and should not be involved with the removal of the contamination. Their responsibility is to compare quotes and ensuring the Scope of Work addresses the entire problem. Further, they also perform post remediation inspections to ensure the project was completed properly and that your structure is safe to occupy. Most inspectors provide this service for a few hundred dollars. In some situations this cost can be negotiated with the contractor.

The Golden Hours - If you have water intrusion into your home or have plumbing leaks, you have approximately 72 hours to remove the moisture before mold becomes an issue. Remember, water extraction and dehumidification costs are typically covered by your insurer, however, most insurers have capped mold remediation costs to a small percentage of the actual costs.

While water extraction companies are performing more mold remediation work, it is best to find a mold professional to inspect the water extraction work to ensure mold does not find a foothold in your home. Again, if the water extraction process is not completely effective, the cost to address mold contamination is on you. Better to spend a few hundred dollars on a mold inspector than tens of thousands on a mold remediation project.

Conclusion:

Mold is not a welcome guest in our indoor environment. Fortunately, new remediation protocols and inhibitor strategies provide a safe and effective process for removing it and ensuring it does not return. In addition, today's remediation professional is well trained and well equipped to tackle the problem.

Do's and Don'ts

- Do perform routine property inspections for signs of moisture intrusion
- Do clean gutters often and caulk windows and doors
- Do perform routine heating and ventilation system inspections
- Don't ignore small pipe leaks or water stains
- Don't ignore musty smells or malodor
- Do seek the advice of a trained mold professional
- Do compare quotes and discuss warranties **before** work begins
- Do seek the assistance of a third party inspector
- Don't accept shortcuts or bargains
- Don't attempt to tackle the problem yourself

For more information please contact us at: info@iaqsolutions.org