

# Mould Remediation

## Qualifications & Proposal Evaluation

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

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### Introduction:

The mould 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 mould 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 class room 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 mould 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.

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### Where To Begin:

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

- Indoor Air Quality Association - [www.iqaq.org](http://www.iqaq.org)
  - American Industrial Hygiene Association - [www.aiha.org](http://www.aiha.org)
  - Institute of Inspection, Cleaning and Restoration Certification - [www.iicrc.org](http://www.iicrc.org)
  - Mould Inspection Consulting and Remediation Organization - [www.mouldcareer.com](http://www.mouldcareer.com)
  - National Organization of Remediators and Mould Inspectors - [www.norml.org](http://www.norml.org)
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### Minimum Contractor Qualifications:

- Physical Corporate Presence & Appropriate Infrastructure
  - Mould Investigator and/or Contractor Certification - IAQA, IICRC, or Equivalent
  - Two Years Minimum Experience As A Mould 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
  - Observe Industry Standards & Practices
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While flood, fire, and water restoration companies, home inspectors, remodeling companies, and even pest control companies may advertise mould removal services, it is best to select a company that specializes in mould identification and decontamination. Mould contamination is a unique issue and should be addressed by contractors with specific training and extensive industry experience.

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### **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 mould 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.

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### **Comparing Costs:**

Like any other product or service, you get what you pay for. While new bio-decontamination technologies can reduce total project costs when compared to traditional methods, there are no shortcuts or magic bullets to mould remediation. Mould 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 mould will quickly amplify once again. A proper remediation job should safely remove the contamination and ensure it will not return.

## Other Project Considerations:

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

1. Containment of the Work Area
2. Removal of Water/Mould 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 mould was achieved through abrasive sanding or brushing. This process makes it difficult to reach all cracks and crevices where mould 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 mould. Therefore it is important to understand what protocols will be used on your particular project and to understand the benefits/limitations associated with each.

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**EPA Registered Chemistry** - There are literally hundreds of chemical products on the market claiming mould 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 mould 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**