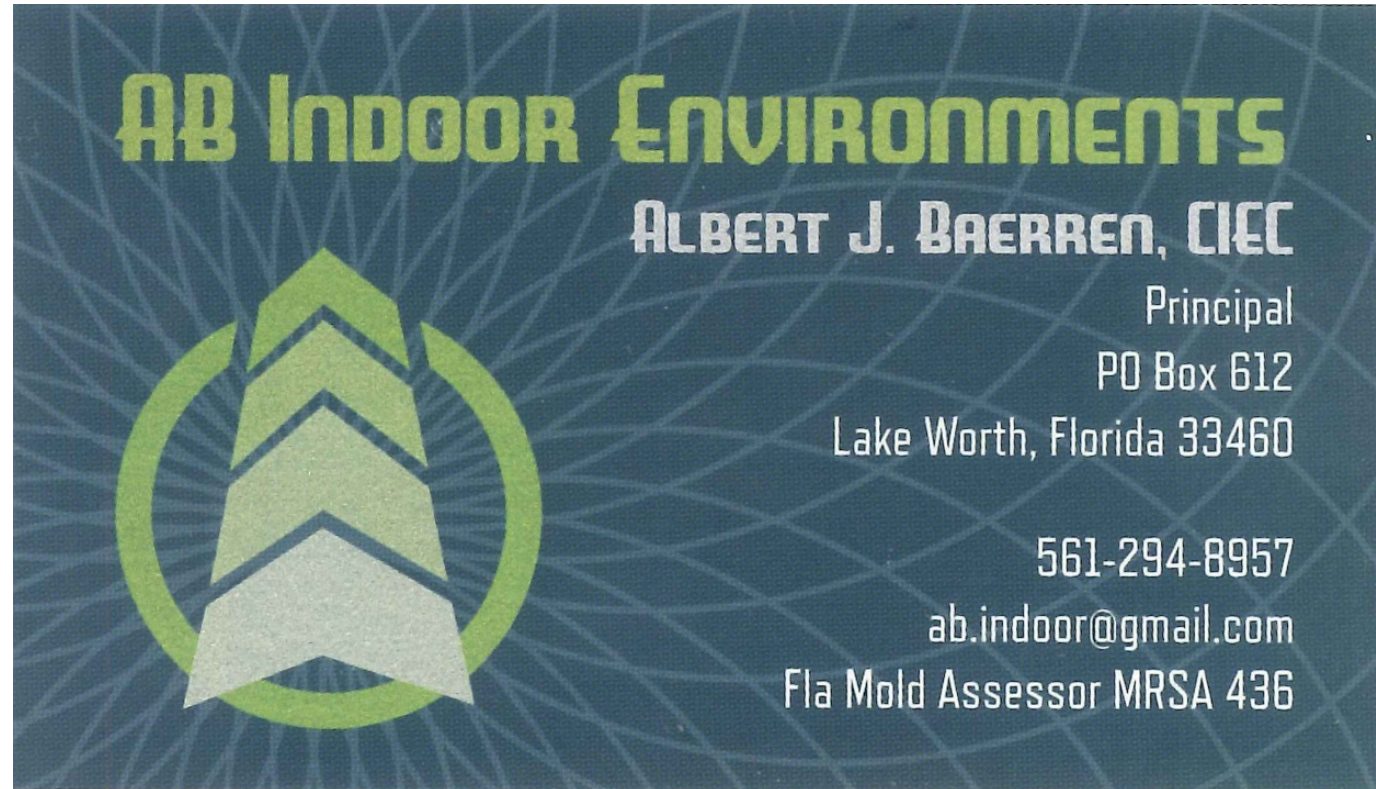


THE INDUSTRY OF MOLD

- ▶ The rapidly emerging restoration industry (fire, water, mold) has lost sight of its true purpose in serving the property owners. Due to the threat of litigation and absence of oversight, Florida has seen steady price increases coupled with a decreasing standard of care.

presented by



AB INDOOR ENVIRONMENTS

ALBERT J. BAERREN, CIEC
Principal
PO Box 612
Lake Worth, Florida 33460

561-294-8957
ab.indoor@gmail.com
Fla Mold Assessor MRSA 436

The business card features a dark blue background with a subtle pattern of light blue lines. On the left side, there is a logo consisting of a green circle containing a stylized, upward-pointing arrow shape made of four stacked, chevron-like segments in shades of green and grey. The text is in a bold, sans-serif font, with the company name and contact information in white and the name in a slightly larger, bold font.

AIHA Fla Conference
Orlando, Florida
April 5, 2019



The Emergence of Mold

- ▶ **Before Mold: The Asbestos Years** – 1900s. Moldy materials were simply removed as construction debris.
- ▶ **Mold Emerges: From Infancy to Industry** - 2000s. Use asbestos abatement techniques on mold, lots of backlog, easy money, mold is gold. Insurance pays.
- ▶ **The Golden Years of Mold** - 2010s. Services have now expanded to include photographing, infra-reding, drying, spraying, air sampling, fogging, testing, measuring, cleaning, disinfecting, ozoning, hydroxyling, and encapsulating the mold before anyone gets around to removing it.

The Cost of Doing the Same
Thing Continues to Increase !!



Hype Marketing

**YOUR HOME
COULD BE MAKING
YOU SICK**

RealTime Labs
Environmental Mycotoxin Test
may be the answer

Special Pricing for
Florida residents.

REALTIME
LABORATORIES INC.
Cutting edge. Breaking barriers.

4100 Fairway Ct. Suite 600 Carrollton, Texas 75010
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Emergency Response

MYCOTOXINS

Toxic Black Mold

MOLD

Hazardous Waste

Category 3 Water

Do you need meds?

What are Mycotoxins?

The World Health Organization (WHO), in its 2011 publication Entitled "Mycotoxins. Children's Health and the Environment" defines mycotoxin as follows:

- *Toxin* - A natural produced poison.
- *Mycotoxin* - Natural byproducts produced by fungi (i.e. mold) that evoke a toxic response when introduced in low concentrations to Vertebrates (e.g. humans), by a natural route.



Mycotoxins are produced by a number of different toxin producing fungi found in water damaged indoor environments. Their impact can be life-threatening.

! Did You Know...

- Aflatoxins, produced by mold found in many homes, are the most potent natural cancer causing agent known to man. Ingestion is KNOWN to cause liver cancer in humans.
- Trichothecenes produced by *Stachybotrys* ("Black Mold"), found in water damaged homes, are so lethal they have been used as chemical warfare agents.
- Ochratoxins, again produced by indoor fungi, are listed in the National Toxicology Program 13th Report on Carcinogens as "Reasonably Anticipated to be Human Carcinogens".
- Animal studies with mycotoxins have shown that inhalation is the most toxic route of exposure. When certain laboratory animals are exposed to mycotoxins by inhalation... they die!
- Studies have shown that mycotoxins can be transferred from a mother to her infant by breast feeding.

What is an Acceptable Level of Exposure for Your Family?



RealTime Labs Environmental Mycotoxin
Testing tests for the presence of 15
of the most common and toxic
mycotoxins found in homes.

Misinformation

- Why is everyone under the impression that you dry moldy walls before removing them? The ‘Dry-Out’
- Why does everyone think that a mold assessment consists primarily of air sampling? The ‘Labs’
- Why does everyone think that if you have mold in your house, you have to spray it and kill it with chemicals?
‘Plant-based anti-microbial agent’

Answer.....

- Tribalism, Internet, 1st Responders

Insurance Information Institute (III)

December, 2018

FLORIDAS ASSIGNMENT OF BENEFITS (AOB) CRISIS

- ▶ Water damage companies are pushing AOB contracts
- ▶ One way attorney fees are driving up the amount of litigation
- ▶ AOB lawsuits are increasing much faster than the # claims
- ▶ AOB lawsuits increased 1,300 in 2000 to 135,000 in 2018
- ▶ Originally focused in S Florida, now spreading across Florida
- ▶ Water damage companies with AOB contracts have a negotiating advantage, Pay or Else!
- ▶ The cost of homeowners insurance in Florida will continue to rise at a steep rate for the foreseeable future.

The Plaintiff Network

- ▶ Plaintiff attorneys, public adjusters (PA), mitigators, remediators, assessors, plumbers, roofers, etc are all operating within an organized network dedicated to driving up the total cost of water damage management.
- ▶ Plumbers/Roofers refer property owners to the network.
- ▶ Mitigators arrive immediately to sell the AOB; perform the 'Dry-Out'
- ▶ Mold assessors will only confirm the presence of mold
- ▶ Remediators work with the PA to build the scope of work; Xactimate
- ▶ PA submits an inflated claim to the insurance company
- ▶ Attorneys apply their one-way advantage whenever an inflated scope of work or invoice is questioned

- ▶ The Industry of Mold is booming and the cost of homeowners insurance in Florida will continue to rise at a steep rate for the foreseeable future.

The Hidden Cost: Declining Quality of Service



- ▶ ‘Professionals’ and ‘Experts’ mimic actual services
- ▶ Mitigation companies are not drying structures
- ▶ Mold assessors (hygienists) are not conducting mold assessments or establishing a scope of work
- ▶ Mold remediators are cleaning up on bells and whistles while leaving the job site filthy

Lets carry this a step further.....

- ▶ Larger, independent remediation companies have seen the profits of those in the plaintiff network and naturally they have gravitated towards those poor practices that create more profits.
- ▶ These larger companies are the preferred providers to insurance companies and manage water damage claims on their behalf. (examples....)
- ▶ These companies are trusted because they are not attached to the Plaintiff Network, but they often submit the same poor practices.
- ▶ The insurance industry and public at large has grown to accept it because they are not equipped to reject misinformation about adequate service.

▶ **Poor practice has become the standard of care.**

Declining Quality of Service

How is this happening?

- ▶ Project Goals
- ▶ Weak mold law
- ▶ No standards of practice, no enforcement
- ▶ Self monitoring

Project Goals

Keeping the claim alive

- ▶ Traditionally the goal of water damage management was to fix the water source and repair the damage as soon as possible. The sooner you finish the work, the sooner you get paid, right?
 - ▶ The property owner would be much happier with a quick result but they were marginalized the moment they signed the AOB.
- ▶ Profit oriented individuals seek to keep their insurance claim alive as long as possible. The longer the mold stays on the wall, the more processes that can be directed at it.
 - ▶ These things now take months to resolve.

Florida Mold Law

Chapter 468.84 Mold-Related Services

- ▶ Legislative Purpose: ...in the interest of public safety and welfare, to prevent damage to real and personal property, to **avert economic injury to the residents of this state**, and to **regulate persons and companies who [claim to be qualified]**.
- ▶ Establishes separate licenses for mold assessors and mold remediators. No person or company can perform both functions at the same property in the same year. Unless they are classified as a Division I contractor.
 - ▶ The assessor license requires a 3 day course, pass a test, and 3 years of experience via invoices.

The assessor sets the scope of work and the remediator executes that scope of work.

- ▶ Establishes a mold assessment as ‘a process performed by a mold assessor ... about the **origin, identity, location, and extent of amplification of mold growth** greater than 10 square feet.’
 - ▶ Who determines whether there is 10 sf of mold and when is this determined?

Florida Mold Law, 61-31.701

Minimum Standards of Practice for Mold Assessors

- ▶ (1) The purpose of a mold assessment is to determine the sources, locations, and extent of mold growth in a building and to determine the condition(s) that caused the mold growth,
- ▶ (2) If a mold assessor determines that personal protective equipment (PPE) should be used during a mold assessment project, the assessor shall ensure that all individuals who engage in mold assessment activities and who will be, or are anticipated to be, exposed to mold shall be trained on the appropriate use and care of the specified PPE in accordance with all applicable OSHA regulations. If it is determined that respiratory protection is required, disposable respirators (e.g. N-95) are considered the minimum level of protection for mold assessment activities.
- ▶ (3) A visual inspection to identify the presence of visible mold and/or excessive, unplanned moisture intrusion (past and present).
 - ▶ (a) A visual inspection should include all surfaces inside the building, hidden areas where moisture sources may be present, such as but not limited to, crawl spaces, attics, and behind vinyl wallpaper, baseboards, carpets, and wallboard wherever possible.
 - ▶ (b) Specific indicators to note during the visual assessment include, but are not limited to the following:
 - ▶ 1. Suspect mold growth;
 - ▶ 2. Musty odor;
 - ▶ 3. Moisture damage; and
 - ▶ 4. Damp building materials and/or conditions.

Florida Mold Law, 61-31.701

Minimum Standards of Practice for Mold Assessors

- ▶ Notice of Change/Withdrawal
- ▶ DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
- ▶ RULE NOS.: RULE TITLES:
- ▶ 61-31.701 Minimum Standards and Practices for Mold Assessors
- ▶ 61-31.702 Minimum Standards and Practices for Mold Remediators
- ▶ NOTICE OF WITHDRAWAL
- ▶ Notice is hereby given that the above rule, as noticed in Vol. 40 No. 250, December 30, 2014 issue of the Florida Administrative Register has been withdrawn.

Florida Mold Law, Disciplinary Orders

No standards of practice = No enforcement

License Type	Respondent	Complaint Number	License Number	Classification	Incident Date	Status	Disposition	Disposition Date	Discipline	Discipline Date
Mold Assessor	BONOMO, JOSEPH RAYMOND	2011040865	193	Licensed Activity		Closed	Final Order	5/10/2012	Probation Cost Fine	5/23/2012 5/10/2012 5/10/2012
Mold Assessor	DUFRESNE, RYAN	2014023137		Licensed Activity	5/19/2014	Sent to Collections Agency	Citation filed	6/30/2014	Citation	5/20/2014
Mold Assessor	WHITTINGTON, RANDALL C	2011055163	1774	Licensed Activity	10/14/2011	Closed	Final Order	5/24/2012	Cost Fine	5/24/2012 5/24/2012
Mold Remediator	MENDEZ, RAFAEL MICHAEL	2014008298	2217	Licensed Activity		Sent to Collections Agency	Final Order	2/22/2016	Fine Cost	2/23/2016 2/23/2016
Mold Remediator	WHITTINGTON, RANDALL C	2011055151	1933	Licensed Activity	10/14/2011	Closed	Final Order	5/24/2012	Cost Fine	5/25/2012 5/25/2012

Self Monitoring

“Yes we did a great job”

- ▶ Water mitigators determine for themselves when the walls are dry. They often use the 3 day rule or measure relative humidity.
- ▶ Remediators get a post remediation verification (PRV) as confirmation they completed the work. PRV is based solely on the ‘Labs’ and rarely includes observations of cleanliness.
- ▶ The property owner who has no training in water damage and was subject to misinformation is asked to sign a Certificate of Satisfaction.

Certificate of Completion

TELEPHONE: 786.853.1133

Print Client Name:

Emelio Mantecon on behalf of AMD Property Ventures LLC

Client phone number:

305-772-6157

Property St. Address:

20854 Grouper Dr. Cutler Bay, FL 33157

Date of Completion:

10/27/2018

Insurance Carrier:

Citizens

Claim Number:

001-00-196721

This is to certify that Prestige Restoration & Renovation, Inc. have completed the water mitigation service at my house, resulting from the loss corresponding to the claim mentioned above. All services have been provided to my satisfaction, the moisture readings in my property are back to pre-loss conditions. I'm consenting full, and irrevocable permission to my insurance carrier to issue payment to Prestige Restoration & Renovation, Inc.

Name of the Insured

Emelio Mantecon

Signature of the Insured

Emelio Mantecon

How do we know what is a proper response?

▶ Coverages:

- ▶ Reasonable measures: “In the event that covered property is damaged by a Peril Insured Against, we will pay the **reasonable** cost incurred by you for **necessary** measures taken solely to protect against further damage”

▶ Conditions:

- ▶ Duties After Loss: “Protect the property from further damage. If repairs to the property are required, you must: a. Make **reasonable** and **necessary** repairs to protect the property; and b. Keep an accurate record of repair expenses;
- ▶ Loss Settlement: “... we will pay the cost to repair or replace, after application of any deductible and without deduction for depreciation, but not more than the least of the following amounts: ... (3) The **necessary** amount actually spent to repair or replace the damaged building.”

What is “Reasonable” and “Necessary”

- ▶ When not defined in the policy, you look to the plain meaning of the words as set forth in legal and non-legal dictionaries (Merriam - Webster)
 - ▶ Reasonable - “being in accordance with reason.”
 - ▶ Reason - “think, understand, and form judgments by a process of logic.”
 - ▶ Necessary - “absolutely needed” and/or “of an inevitable nature”.

What tells us the Reasonable and the Necessary? Guidance Documents

- ▶ ACGIH – Bioaerosols: Assessment and Control (1999)
- ▶ NYC Guidelines – Assessment and Remediation of Fungi in Indoor Environments (2000)
- ▶ EPA – Mold Remediation in Schools and Commercial Buildings (2001)
- ▶ FEMA – Dealing with Mold & Mildew in Your Flood Damaged Home
- ▶ OSHA – A Brief Guide to Mold in the Workplace
- ▶ AIHA – Assessment, Remediation, and PRV of Mold in Buildings
- ▶ EPA - Mold Moisture and Your Home (2012)
- ▶ ASTM D7338 – Standard Guide for Assessment of Fungal Growth in Buildings (2014)
- ▶ ANSI/IICRC S500 – Standard for Water Damage Restoration (2015)
- ▶ ANSI/IICRC S520 – Standard for Professional Mold Remediation (2015)

Circle the Wagons Around The Guidance Documents



Examples of Poor Practice

- ▶ Where Unnecessary runs rampant and Reasonable is nowhere to be found.

Goofus and Gallant

By Garry Cleveland Myers
Pictures by Marion Hull Hammel



Goofus throws stones at birds.



Gallant scatters feed for birds.



Squirrels are scared of Goofus.



Squirrels eat from Gallant's hand.



Goofus crushes ants for fun.



Gallant watches ants for fun.

Water Source

Goofus

Focused only on mold.

Gallant

Identifies and repairs the water source.

- ▶ In all cases, water caused the mold.
- ▶ Mold is the symptom, not the disease.
- ▶ If you don't stop the water, mold will continue to occur.
- ▶ Repairing the water source is necessary!

Water Source - Disclaimers

- ▶ Mitigation – IICRC states it is up to the property owner to diagnose and repair the water source.
- ▶ Mold Assessor - “In all instances, any source of water must be stopped and the extent of water damage must be determined.”
- ▶ Mold Remediation – XXX does not guarantee nor is responsible for the source of the problem or if the problem has been corrected.

Water Source

What does the guidance say?

- ▶ **NYC Guidelines** – “In all situations, the source of water must be identified and corrected or the mold growth will recur.”
- ▶ **EPA** – “The key to mold control is moisture control.” “The remediation plan should include steps to fix the water or moisture problem...”
- ▶ **OSHA** – “The remediation plan should include steps to permanently correct the water or moisture problem...”
- ▶ **AIHA** – “The most important step is to identify the source(s) of moisture... and to take necessary steps to make repairs to stop them.”
- ▶ **ASTM D7338** – “An understanding of building moisture is generally necessary to help identify the underlying cause of fungal growth and estimate the extent.” Lists numerous possible causes to investigate.
- ▶ **ANSI/IICRC** – ‘Detailed inspections should be conducted to identify the Category of water, extent of wetting, and affected materials.’ “Moisture problems should be identified, located, and corrected or controlled as soon as possible.” “...it is the responsibility of the property owner, not the restorer, to correct the source of the water intrusion...”

Water Mitigation

Goofus

Dries moldy walls.

Gallant

Removes moldy walls.

The purpose of water mitigation is to stop the water source and try to salvage affected materials.

Moldy walls cannot be salvaged. Therefore drying moldy walls is unnecessary.

Water Damage Management

3-1-2 v 1-2-3

1-2-3 is Assessment-Remediation-Drying

3-1-2 is Drying-Assessment-Remediation

Any idea why the order was transposed?

Water Mitigation

Why is drying moldy walls bad?

- Drying burns a lot of electricity.
- Drying emits heat, disrupts AC function.
- Drying vibration disrupts the home environment.
- Drying spreads mold.
- Drying wastes time.
- Drying often doesn't work.
- Unnecessary drying creates an unnecessary drying invoice.

Water Mitigation

What can mitigators do?

- Identify/Repair the water source.
- If <10 sf mold, remove it on the spot !!
- If >10 sf mold
 - Remove any excess water.
 - Contain mold.
- If there is no mold, then dry immediately.

Water Mitigation

What does the guidance say?

- ▶ ANSI/IICRC S500 (Drying) - For situations involving visible mold, refer to next...
- ▶ ANSI/IICRC S520 (Remediation) - Qualified persons shall abate regulated materials, or should remediate mold prior to drying.

Mold Assessment

Goofus

Relies on air samples.

Gallant

Relies on his eyes.

- ▶ Air samples cannot identify the water source.
- ▶ Air samples cannot confirm the presence of fungal growth.
- ▶ Air samples cannot confirm the location of fungal growth.
- ▶ Air samples cannot confirm the extent of fungal growth.
- ▶ Air samples are poor diagnostic tools on a mold assessment.
- ▶ Air samples are unnecessary. Simple looking is much better.
- ▶ If there is uncertainty, tape samples for confirmation.

Mold Assessment

Why are air samples bad?

- ▶ The commonly accepted number of 2-4 air samples are statistically insignificant. The CIH community generally agrees that a statistically significant air sample assessment would require a minimum 30+ samples.
- ▶ Interpretation of results can vary widely from person to person. There are no set standards for comparison. Interpretations are typically aligned with the goals of the interpreter.
- ▶ Air samples do not provide the information necessary for a remediation protocol. They insidiously take the customers eye off the ball.
- ▶ Air sample results drive up the hysteria level, which leads to poor decision making.
- ▶ Air samples are actually an inhalation exposure assessment, and can be argued to confirm potential liability.

Air Sampling

What does the guidance say?

- ▶ NYC Guidelines – “Environmental sampling is not usually necessary to proceed with remediation of visually identified mold growth...”
- ▶ EPA – No mention of air sampling. Step 1 is fix the water source, Step 2 is remove mold.
- ▶ OSHA – No mention of air sampling.
- ▶ AIHA – “When mold is visually identified, the contaminated materials should be replaced and sampling is therefore not necessary.”
- ▶ ASTM D7338 – Last sentence in the 9 page document... “Sampling, if performed at all, should be planned to test a specific hypothesis.”
- ▶ ANSI/IICRC S500/S520 – No mention of air sampling. Recommends observation and a moisture survey.
- ▶ Florida Standards of Practice (Withdrawn) - “If visible mold growth is present mold sampling is unnecessary in most cases.”

Mold Remediation Protocol

Goofus

Uses general statements.

Does not set scope of work.

Gallant

Uses site specific details.

Sets the scope of work.

- ▶ Before walls are removed, someone has to determine which walls are removed. This is setting the scope of work.
- ▶ The mold assessor creates a site specific scope of work that identifies remediation areas and activities.
- ▶ The site specific scope of work is necessary.

Mold Remediation Protocol

What is going on here?

- ▶ Remember, Florida law was designed to prevent remediators from determining their own scope of work for mold remediation > 10sf.
- ▶ A detailed, site specific protocol puts constraints on remediation activities.
- ▶ Remediation activities are unlimited with a generic protocol.
- ▶ Assessors in the Plaintiff Network just need to demonstrate there is some mold in the structure and state remediation is necessary.

Mold Remediators

Setting their own scope of work

General

DESCRIPTION	QTY	UNIT PRICE	TOTAL
1. Hazardous Waste/Mold Cleaning Technician - per hour 3 technicians at 8 hours each.	24.00 HR @	63.42 =	1,522.08
2. Hazardous Waste/Mold Cleaning- Supervisory/Admin- per hour 1 supervisor at 8 hours.	8.00 HR @	76.49 =	611.92
3. Plastic container - hazardous waste cleanup - Large	1.00 EA @	13.95 =	13.95
4. Plastic bag - used for hazardous waste cleanup - Large	25.00 EA @	3.54 =	88.50
5. Apply anti-microbial agent to the surface area	100.00 SF @	0.27 =	27.00
6. Add for HEPA filter (for neg. air machine/vacuum - Large)	1.00 EA @	243.01 =	243.01
7. Add for HEPA filter (for upright vacuums)	1.00 EA @	28.69 =	28.69
8. Provide box & tape - large size Boxes to pack out kitchenware.	3.00 EA @	3.64 =	10.92
9. Dumpster load - Approx. 12 yards, 1-3 tons of debris	1.00 EA @	440.00 =	440.00
10. Equipment decontamination charge - per piece of equipment	3.00 EA @	39.94 =	119.82
11. Containment Barrier/Airlock/Decon. Chamber	100.00 SF @	0.85 =	85.00
12. Peel & seal zipper - heavy duty	1.00 EA @	14.38 =	14.38
13. Protect - Cover with plastic	150.00 SF @	0.30 =	45.00
14. Add for personal protective equipment - Heavy duty	3.00 EA @	18.42 =	55.26
15. Eye protection - plastic goggles - Disposable	3.00 EA @	4.72 =	14.16
16. Respirator - Half face - multi-purpose resp. (per day)	3.00 DA @	1.67 =	5.01
17. Haul debris - per pickup truck load - including dump fees	1.00 EA @	143.70 =	143.70
18. Endoresment Processing Fee	1.00 EA @	495.00 =	495.00

Foyer/Entry

DESCRIPTION	QTY	UNIT PRICE	TOTAL
19. Dehumidifier (per 24 hour period) - XLarge - No monitoring	3.00 EA @	110.00 =	330.00
20. Neg. air fan/Air scrub.-XLrg (per 24 hr period)-No monit.	3.00 DA @	157.51 =	472.53
21. Hydroxyl generator - odor counteractant - 3 optics	3.00 DA @	225.49 =	676.47
22. Tear out wet drywall, cleanup, bag, per LF - to 2' - Cat 3	6.00 LF @	5.54 =	33.24
23. Apply anti-microbial agent to the surface area	100.00 SF @	0.27 =	27.00
24. HEPA Vacuuming - Detailed - (PER SF)	100.00 SF @	0.75 =	75.00

Xactimate

Mold Remediation Protocol

What does the guidance say?

- ▶ NYC Guidelines – A Competent Professional should develop a site specific work plan.
- ▶ AIHA – “AIHA does not believe the skills necessary to conduct proficient mold assessments can be obtained through attendance at a training course held over a period of a few days.”
- ▶ ANSI/IICRC S500/S520 – A mold assessment and remediation protocol should be performed by an indoor environmental professional (IEP).
 - ▶ “An IEP engaged to perform pre-remediation assessment or post-remediation verification should be independent of the remediator.”
 - ▶ “If the IEP ... is not independent from the remediator, they should disclose in writing to the client that they are deviating from the Standard.”

Mold Remediation

Goofus

Remediates everything.

Gallant

Follows scope of work.

- ▶ Remediates 1 sf or less of mold.
- ▶ Remediates invisible mold.
- ▶ Remediates salvaged materials.
- ▶ Remediates unaffected areas.
- ▶ Contends the entire house is Condition 2 (settled spores).
- ▶ Contends every water exposure is Category 3.

Mold Remediation

What does the guidance say?

- ▶ Florida Statute – Small areas <10 sf of contiguous fungal growth are non-regulated.
- ▶ Texas Law - Areas <25 sf of contiguous fungal growth are non-regulated.
- ▶ NYC Guidelines – Small isolated areas <10 sf of fungal growth can be remediated by building maintenance staff.
- ▶ EPA – <10 sf no containment and minimal PPE.
 - ▶ <10 sf can be handled by a homeowner.
- ▶ FEMA – Homeowner should contact a contractor with >25 sf fungal growth.
- ▶ OSHA – Small isolated areas <10 sf can be cleaned by building maintenance staff.
 - ▶ Canadian OSHA generally agrees.
- ▶ AIHA – Areas over 100sf should be remediated by trained personnel, under full containment.
 - ▶ <10 sf can be handled by a homeowner.
- ▶ ASTM D7338 – Does not discuss remediation threshold
- ▶ ANSI/IICRC S500/S520 – Does not discuss remediation threshold

Biocide Chemicals

Goofus	Gallant
Kills mold.	Cleans mold.

- ▶ Biocide = Kills Life
- ▶ If you kill it, you still have to clean it.
- ▶ If you clean it, there is nothing there to kill.
- ▶ Spraying with biocide chemicals is typically unnecessary.
- ▶ “What hurts microbes, hurts humans.” Dr. Chin Yang; May, 2018.

BIOCIDE CHEMICALS

Mitigation Agreement

Informed Consent of Product Use Form

The use of Biocides, Disinfectants, Sanitizers, or Decontamination Deodorizers may or may not be desirable in the remediation of your property. These products are often applied to help control microbial amplification and/or odors that can occur as a result of the incident you have experienced. In order to better serve you and help you to maintain an informed decision as to whether or not to have these products applied during this project, we present you with the following information:

1) **Product Information Literature (If Available) Product Names:** _____

This is usually a brochure or other literature published by the product(s) manufacturer, which present the features, benefits, and recommended uses for the product.

_____ I have received product information literature on the above listed product(s).

2) **Material Safety Data Sheet (M.S.D.S.) Product Names:** _____

This form required by the Federal Right-To-Know Law describes the safe handling and usage of the product listed above. It provides useful information regarding potential health concerns, proper application, disposal, and safety procedures.

Please read this carefully!

_____ I have received Material Safety Data Sheets on the above listed products.

It is recommended that during the use of these products, and immediately after use that all unprotected occupants exit the immediate area according to the directions on the products EPA registration label, M.S.D.S. and or Manufacturers Product Information Sheet. We ask that you remain out of the area until the product has had appropriate dwell time and has been properly ventilated and your medical provider indicates that it is safe for your return. If you, or anyone on the job premises, have any known chemical sensitivities, are pregnant, or have other health status situations, we recommend that you consult with a personal physician prior to having the product applied.

We are providing this information so you can make an informed decision. Verbal statements, opinions, or other representations shall not be binding upon us. **Please select one of the following options:**

_____ **Option 1** After reviewing the information mentioned above, I hereby direct the company to apply the product(s) per my request and at my own risk and agree to release, hold harmless, and defend them against and resulting physical or other harm that may result from the use of such products.

_____ **Option 2** After reviewing the information mentioned above, I have decided to decline the application of the product(s). As a result, I agree to release, hold harmless, and defend company against claims for any resulting microbial amplification, health concerns, or odors that could occur as a result.

Customer Signature: _____

Date: _____

Biocide Chemicals Remediation Protocol

8. Apply an antimicrobial/antifungal disinfectant to affected areas within the interior.
9. Removal of BATHROOM drywall: remove and properly discard of any drywall that has come in contact with the mold.
10. Removal of KITCHEN MATERIAL: remove and properly discard of any cabinetry that has come in contact with the mold.
11. Only remove cabinets if needed to access other infected areas behind the furniture.
12. Investigate the inside of the drywall for any more contaminated material. If discoloration is present, remove until no discoloration is observed.
13. Bag and properly dispose.
14. Clean, scrub and disinfect affected areas within interior, contents within interior, with an antimicrobial/antifungal disinfectant.
15. Re-fog newly-exposed areas in interior with an antimicrobial/antifungal disinfectant.
16. HEPA vacuum surfaces to remove dead spores.
17. Be sure to seal the remediated surfaces with an anti-microbial paint.

Biocide Chemicals Remediation Invoice

12. Equipment decontamination charge - per piece of equipment	1.00 EA @	37.11 =	37.11
13. Heat/AC register - Mechanically attached - Detach & reset	7.00 EA @	5.99 =	41.93
14. Air handler - with A-coil - Detach & reset	1.00 EA @	859.15 =	859.15
15. Eye protection - plastic goggles - Disposable	3.00 EA @	4.72 =	14.16
16. Deodorize building - Hot thermal fog	12,940.00 CF @	0.05 =	647.00
17. Apply plant-based anti-microbial agent	1,294.00 SF @	0.22 =	284.68
18. Peel & seal zipper - heavy duty	7.00 EA @	15.20 =	106.40
19. Contamination - pre & post test - full service (Bid Item)	3.00 EA @	350.00 =	1,050.00
20. Lead test fee - full service lead survey	2.00 EA @	420.00 =	840.00
21. Emergency service call - after business hours	1.00 EA @	198.80 =	198.80
22. Negative air fan/Air scrubber (24 hr period) - No monit.	7.00 DA @	70.00 =	490.00
23. Carbon vapor filter (for air scrubber) - 24" x 24"	7.00 EA @	99.75 =	698.25
24. Hazardous Waste/Mold Cleaning Technician - per hour	30.00 HR @	57.83 =	1,734.90
25. Containment Barrier - tension post - per day	30.00 DA @	3.30 =	99.00
26. Respirator - Full face - multi-purpose resp. (per day)	3.00 DA @	7.61 =	22.83
27. Personal protective gloves - Heavy duty (per pair)	3.00 EA @	4.30 =	12.90
28. Baseboard - Detach & reset	121.00 LF @	1.59 =	192.39
29. Apply biological cleaning agent (spore-based) - after hrs	1,294.00 SF @	0.32 =	414.08
30. Add for personal protective equipment - Heavy duty	3.00 EA @	18.42 =	55.26

Biocide Chemicals



Material Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Moldstat Plus
SYNONYMS: NA
PRODUCT CODES: 100352
EPA REG. NUMBER: 10324-72-9367
MANUFACTURER: Theochem Laboratories Inc
ADDRESS: 7373 Rowlett Park Drive
Tampa, FL 33610-1141

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

ROUTE(S) OF ENTRY:

POTENTIAL HEALTH EFFECTS SHORT TERM/ACUTE EXPOSURE:

Eyes: Yes Inhalation: Yes Skin: Yes Ingestion: Unlikely

EYES: Causes burns and may result in permanent injury to eyes including blindness.

SKIN: Causes corrosive burns. Brief exposures may cause irritation and defatting of the skin. Exposures not promptly washed off may lead to toxic effects similar to ingestion. Harmful if absorbed through skin.

INHALATION: Mists and vapors can irritate the throat and respiratory tract. High vapor concentrations may cause central nervous system effects. Symptoms may include headaches, dizziness, and drowsiness. Harmful if inhaled.

INGESTION: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea and possibly death. Harmful if swallowed.

CHRONIC HEALTH HAZARDS: No further data known

CARCINOGENICITY: NTP: No ARC Monographs: No OSHA Regulated: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Pre-existing eye, skin and respiratory disorders.



Biocide Chemicals Cleaning Supply Website



EQUIPMENT



ACCESSORIES



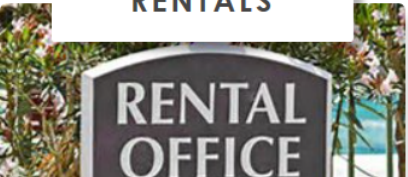
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What is an acceptable level of
exposure for your family?

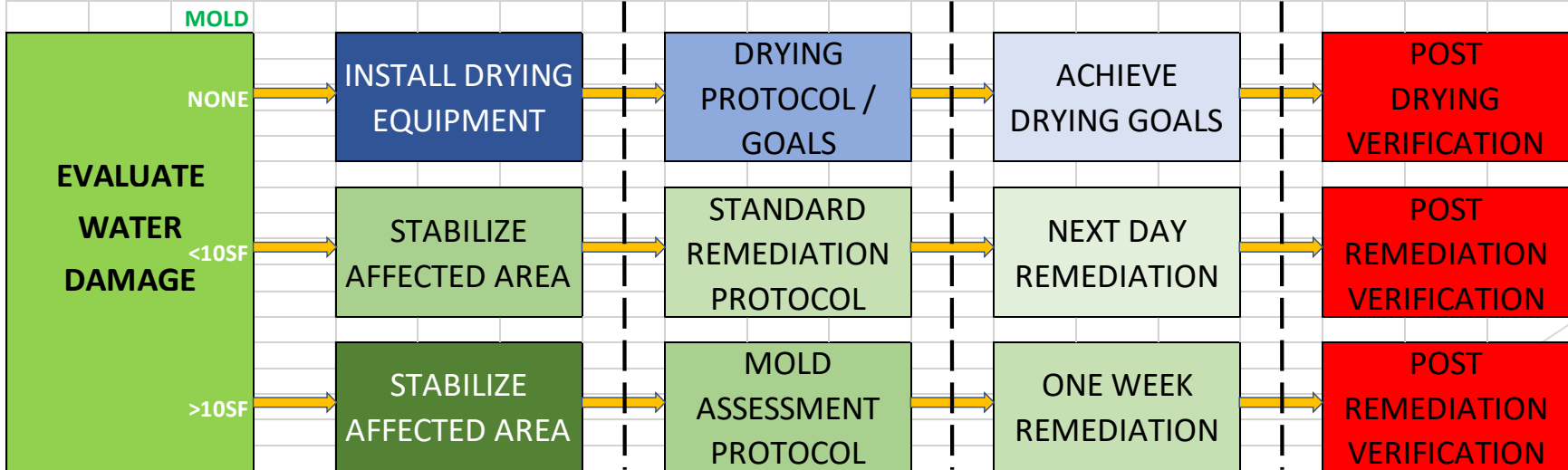
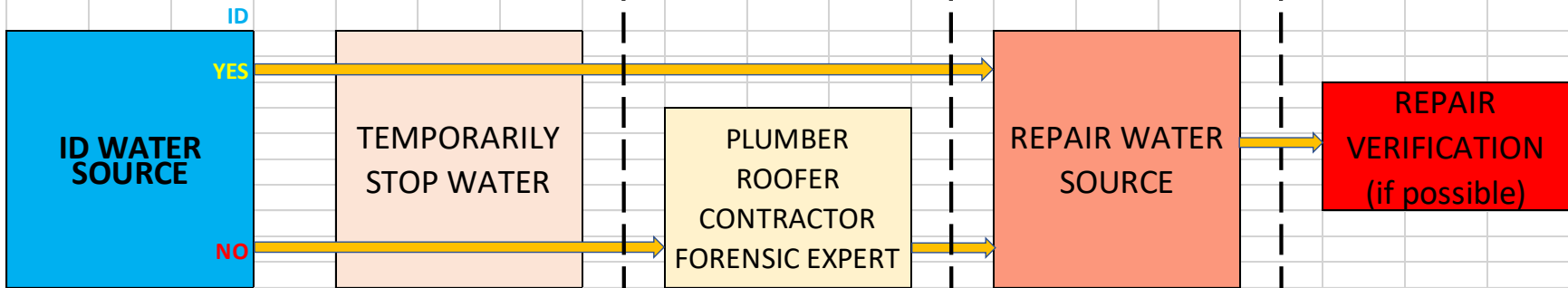
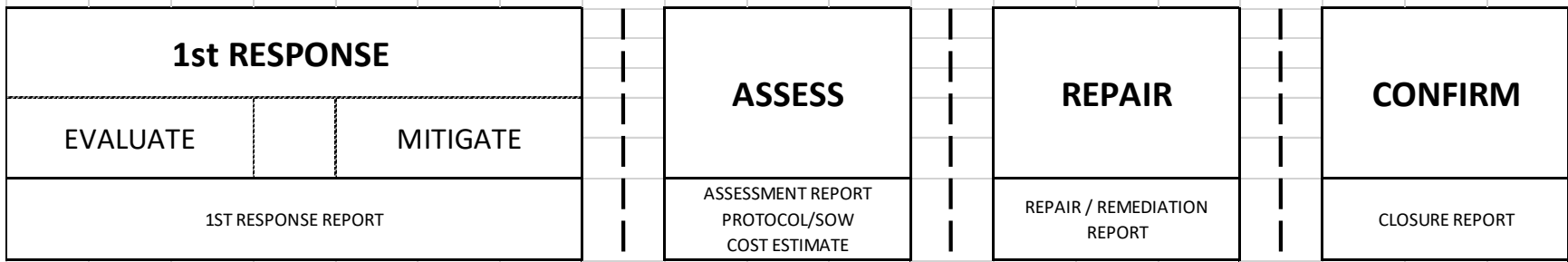
Biocide Chemicals

What does the guidance say?

- ▶ **NYC Guidelines** – “Disinfectants are seldom needed to perform an effective remediation” “The use of aerosolized biocides (ie fogging) for remedial purposes is **not** recommended”
- ▶ **EPA** – “It is necessary to clean up mold contamination, not just to kill the mold.” “Biocides are toxic to humans, as well as to mold.”
- ▶ **AIHA** – “Biocides are often ineffective in mold remediation and their use as a substitute for mold growth removal should be discouraged.”
“The use of biocides or chemical disinfectants is not recommended as these may be hazardous to occupants.”
- ▶ **OSHA** – “As a general rule, simply killing the mold, for example, with biocide is not enough. The mold must be removed” “It is a violation of Federal (EPA) law to use a biocide in any manner inconsistent with its label direction.”
- ▶ **ANSI/IICRC** – “When there is a Category 1 water intrusion...the use of antimicrobials (biocides) is generally not warranted.” “There are several steps... which can return the structure to a sanitary condition without using antimicrobial (biocides). Including:
 - ▶ ‘Stop water intrusion, removing contaminated materials, cleaning and drying affected areas.’

!!! Technical Oversight !!!

- ▶ When the law is silent or ineffective, and service providers are incapable of self-monitoring, then technical oversight is in order !
 - ▶ Mindset on closure
 - ▶ Confirm the need for service.
 - ▶ Ensure the water source is addressed.
 - ▶ Avoid 3-1-2
 - ▶ Document the affected area
 - ▶ Provide an adequate scope of work
 - ▶ Provide closure



In summary...

- ▶ The Florida mold law is weak and has allowed the ‘mold industry’ to grow out of control.
- ▶ To maximize profit, the unnecessary is promoted while the necessary is ignored.
- ▶ Mitigators are not drying walls.
- ▶ Mold assessors are not independent and not controlling the scope of work with a site specific remediation protocol.
- ▶ Remediators set their own scope of work, leave dirty job sites.
- ▶ Nobody’s license is accountable.
- ▶ The overall process is far too slow.
- ▶ Guidance documents tell us what is a necessary and reasonable response to water exposure.
- ▶ Technical oversight provides adherence to guidance with a mindset on closure.

Solutions

What can we do to improve the industry for fellow Floridians?

- ▶ Study guidance documents and make sure its right within our personal spheres of influence.
- ▶ Challenge those who try to work outside the guidance.
- ▶ Lobby for legislative change.
 - ▶ Standards of practice for mold assessors/remediator.
 - ▶ Hold professional licenses accountable.
- ▶ Provide technical oversight for insurance companies and our other clients.
- ▶ Public awareness campaign

PUBLIC AWARENESS

- ▶ Proselytize..... Spread the word Brothers and Sisters
- ▶ Non-Profit Website
- ▶ Social Media
- ▶ Town Hall Meeting
- ▶ Advertising (Billboards, TV Commercials)
- ▶ Educational Videos for Insurance Premium Discount

Discussion

Which efforts to enact change will have the greatest impact?