IAQ RADIO+

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Mold Assessment & Restorative Drying Redefined

Show Number: 703

This week we welcomed Jeremy Beagle, Senior Principal Scientist at SDII Global for a show we titled mold assessment & restorative drying redefined.

Jeremy is a Senior Principal Scientist and CIH with SDII Global having over 18 years progressive experience performing causation assessments pertaining to moisture, fungal growth and other indoor environmental firms in the built environment as well as provides expert witness testimony. Jeremy currently is the 1st Vice President of the IAQA and the Vice-chair for the IICRC S530 Mold Assessment Standard.

Nuggets mined for today's episode:

Tell our audience about how you entered the IEQ field and SDII?

Jeremy started his career in IEQ on post-catastrophe work. With 150+ employees and offices in Texas and Florida; SDII works nationwide. The majority of SDII's work is structural, most employees are engineers and Jeremy is one of three scientists. The firm started doing geotechnical engineering (e.g. sinkholes) and consulting work and then diversified into the environmental sector.

What do you do at work?

60% of Jeremy's work is expert witness. 40% of his expert witness work is pre-litigation where he determines 'what is the problem and what to do about it'? He performs desk reviews of case related documents and makes site inspections to assess or reassess conditions prior to litigation.

Restoration contractors have always struggled with their relationships with insurance carriers; in your experience has it gotten worse?

As he isn't a restoration contractor Jeremy can't answer the question; he commented that contractor scrutiny by the insurance industry has increased overtime. Florida is the 'wild west' and many projects that he reviews have inadequate supporting documentation.

Can you give us an IAQA update?

Jeremy is IAQA's 1st Vice President. The IAQA annual meeting is Feb-6-9, 2023. The IAQA's call for abstracts for presentations at the annual meeting is out now. Jeremy receives 5-6 leads monthly from his profile posted on the IAQA's website and recommends that IAQA members update their profiles. IAQA's Mold in Schools Standard is ready for release. Revamping IAQA chapters and getting more people involved. Serious science programs for non-scientists, understanding vapor pressure is the first one.

What does stabilization mean in S-500?

Remove water or take steps to prevent further damage. Stabilization is being abused by drying contractors who bring in excessive amounts of equipment for excessive periods of time and call it stabilization. Then the water deteriorates or fungal contamination occurs and "stable materials" are torn out.

REDEFINING MOLD ASSESSMENT EXPECTATIONS

The current status quo is backwards because:

- Asked to critique what happened and what was done. (Do you agree with what was done?)
- Pre-existing damage?
- Stabilization
- Start drying (maybe cross contaminating)
- Then rip and tear out materials that are dry.
- Few samples (often only 2, 1 indoors and 1 outdoors), few photos
- Boilerplate protocol. (remove mold)

REDEFINING MOLD ASSESSMENT EXPECTATIONS

- Inspection is more important than sampling
- Sampling first is wrong.
- Part of the inspection is determining the origin and cause of the moisture.
- Evidence based conclusions supported by data and documentation
- Analytical testing (what mold(s), extent of colonization)
- Determine length of fungal growth
- Detailed report
- Author must integrate all the data,

- Site specific protocol. (remove mold and how to remove the mold)

ORIGIN & CAUSE

- Determination of why fungal growth has occurred.
- Origin- moisture source (need to fix)
- Cause- moisture cause (collect info using scientific method)
- Evidence based conclusions
- Observable data
- Measurable data
- Environmental sampling
- How to separate causes (policy provision and length of wetness)
- Estimating

REDEFINING ASSESSMENT

- Replace mold in reports with moisture
- Without moisture there is no growth
- Not just a collection of samples
- Purpose of the assessment is to determine cause and origin of the moisture

STRUCTURAL DRYING

- Remove bulk water and lower RH
- Return wet materials to an acceptable condition-while maintaining function & aesthetic appearance
- Process
- Inspect source contamination-pre-existing damage
- Document moisture conditions & extent of boundaries-moisture levels.
- Set drying goals and obtain agreement on goals.
- Remove unsalvageable building materials
- Prevent cross contamination (e.g. containment, engineering controls)

S-500 Section 8.6 Structural Drying- don't disturb mold)

IICRC S-500 Section 10.4.25 Remediate mold prior to drying. Then tear out.

- Wet Materials that are unsalvageable or mold-laden should be removed before drying.
- Document

Both the ASTM and IICRC have mold standards. Why do we need another one? Will it be prescriptive or performance based?

The IICRC has much wider reach. The standard will lay-out what the "standard of care" should be. It's impossible to prescribe for all situations, so the document will be performance based.

Tips for improving expert witness reports

- Report writing is a science and an art.
- You need a good assessment to provide data and info for a good report
- When you find yourself creative writing it's an indication that your assessment wasn't sufficiently detailed.
- Relevant background
- Details- (when, where and to what extent?)
- Detailed observations (meter readings, etc.)
- Lay out the logic for your opinions
- Use case studies to prove points

Jeremy's general comments:

1. Why are we drying unsalvageable materials before removing them?
2. Is mold assessment being used to make an unjustified leap?
3. Mold assessments must provide value.
4. Are more rigorous qualifications necessary for the industry; particularly in states with mold licensing?
5. Competence is attained through mentorship, working under someone else.
6. Understand the processes and do better!
7. Scientists collect data to provide reliable answers.
8. Education- reevaluate, improve, scale up.
9. WARNING: Look inside cavities before pressurizing them and causing cross contamination.
10. Asbestos and lead testing should be proactive and not based upon when the building was constructed. Not all asbestos is equally friable.

Z-Man signing off

Trivia Question: Whose plaque is number 2563 on Hollywood's Walk of Fame?

Answer: Snoopy

Answered by John Lapotaire