



Pete Consigli, Jon Isaacson, Cliff Zlotnik
Winter Break 2024 Highlight Show

Good Day and welcome to IAQ Radio+ episode 722 blog this week we welcomed “Global Restoration Watchdog” Pete Consigli and special guest Jon “The DYOYO” Isaacson, and Cliff “Z-Man” Zlotnik in an “around the horn” style show, capturing the key take aways from Winter Break 2024. Winter Break 2024 was last week in Bonita Springs, Fl and for those that were not able to attend we look forward to giving away many of the key points. We also had RoundUp comments from Aussie Ashley Easterby from his international perspective. LEARN MORE on IAQ Radio+.

Jon Isaacson, The Intentional Restorer, is an author and host of The DYOJO Podcast. Jon speaks, writes, and coaches through his organization The DYOJO helping the start-up phase owners and growth-minded restoration professionals to shorten their DANG learning curve for personal and professional development. For over two decades Jon has been working in leadership roles with organizations in the construction, hazards abatement, and property restoration industries. Jon recently published two books, Be Intentional: Estimating addressing mindset and habits for insurance claims estimating and Be Intentional: Culture which is a collaborative work discussing how small things enhance or undermine your efforts to build a strong workplace culture.

Pete Consigli is a Restoration Industry Association (RIA) Certified Restorer (CR) and Water Loss Specialist (WLS) and has been a member of the Restoration Industry Association since 1977. Over the years he has been an active volunteer and filled various association leadership roles. Pete is RIA’s “Resident” Historian and an archival resource to the industry. In 2008, Pete received RIA’s most prestigious honor for excellence in restoration, the Martin L. King award. In 2012 RIA made Pete the second honorary member to its association, only the third such honor in RIA’s 75 years.

When **Cliff Zlotnik** entered the field of insurance repair in 1974 the industry was embryonic. Cliff is inquisitive, creative with a talent for problem solving. Cliff learned the business of insurance repair by doing it. Using his disaster repair business as a laboratory, he developed methods, procedures, and products to

successfully accomplish tasks which were previously undoable. Cliff 's techniques in cleaning, odor removal and procedures have become industry standard practices and relied upon globally.

Through his articles, presentations, training programs and IAQradio+ broadcasts and Z-man Blogs, Cliff has shared his knowledge and expertise with thousands of insurance damage repair contractors and stakeholders in the Property Restoration Industry. Cliff Zlotnik is universally known as one of the Restoration Industry's 4 Founding Fathers, a trailblazer and is a pioneer and living legend in the field of insurance damage repair and odor control methodologies.

Nuggets mined from this weeks' episode and last week's event:

"Global Restoration Watchdog" Pete Consigli- Winter Break 2024 was a small intimate technical conference event reminiscent of the early days of Joe Lstiburek's famous Summer Camp. This invitation only event, sold out quickly. The international audience, equally comprised of restorers and indoor environmental professionals, hailed from as far away as Australia, Ireland, UK, Hawaii, California, had the opportunity to learn, network and collaborate.

Consigli's Winter Break provided high level education along with networking opportunities along with fine dining group dinners that Consigli is known for. Vendors included: TRAMEX as primary sponsor, Sunbelt Rentals, ICP Products (Fiberlock, Benefect), Eurofins, Mycometer, IICRC, Epic Estimates and Business Mentors. Exclusive media sponsorship and coverage was shared and provided by IAQradio and the DYOJO.

It was noteworthy that John Downey chose to announce his retirement from the cleaning and restoration industry at the Friday night banquet. Banquet speakers included: John Downey, Owen Boak, Randy Rapp and Lisa Rogers.

RoundUp- Ashley Easterby- Winter Break 2024 was a great event, with many topics that effect our industry. Great camaraderie great networking, fabulous food, hospitality suite, and cigars.

Restoration Winter Break, “The Sunshine State Customer Intimate Summit!”

The Customer Intimate Motto is: Choose your Partners, Pick your Projects and Collaborate for Win-Win”

Upcoming Events

CIB holds its World Building Congress every three years, with the purpose for all building and construction experts in the world. In 2025 Purdue University will host the 23rd World Building Congress #WBC2025 at its campus in West Lafayette, Indiana, USA, from 19-23 May 2025.

<https://wbc2025.cibworld.org/>

World Building Congress WBC2025
19-23 May 2025, Purdue University, USA

IAQA Annual Meeting <https://www.southernphc.com/event/iaqa-2024-annual-meeting-expo/>

RIA Convention/Trade Show <https://convention.restorationindustry.org/>

Home Page Link: <https://www.restorationindustry.org.au/>

Conference Landing Page:

<https://www.restorationindustry.org.au/events/upcoming-events/>

Managing Multiple Large Projects; “Bavarian Bob” Blochinger

Bob served in the military where he learned that the best way to manage complex large tasks was to divide large tasks into manageable smaller team tasks each of which to be managed by an accountable person. Takeaway: “When everyone is responsible, no one is responsible.”

Impressively, Bob was able to handle multiple complex projects (Florida, Bahamas, luxury yacht) simultaneously along with the unexpected added workload of responding to clients’ emergency situations.

Union installers won’t vacuum, vacuuming is out of the scope of their contract.

He discussed a \$500K, labor contract in a 36-story time share building in which his promise was to deliver 17 units per week. Takeaways: labor only contract, attention to detail, weekly payments.

Curve Ball/Murphy's Law: Aventura Offices of time share building owners flooded 10,000 sq ft. Takeaway- Avoided delays by taking advantage of flooring manufacturer's quick ship option for materials.

5 story hotel- remove flooring and related debris. Furnishings moved offsite. Flash patching. Offered superior 3 row tack-strip. Top shelf materials 36,000 square yards. Moisture tested floors.

Removal of double-stick flooring is a nasty job.

Workers have varying people skills. Know your workers as some are accustomed to taking to concrete not high-end clients.

Premium pricing for projects that require multiple shifts.

For emergencies he created reaction teams

Steal available workers from competitors by offering more money.

Floor preparation crews follow manufacturer's guidelines and document.

Carpet installers may not do good floor patch work.

Carpet needs to be installed over flat floors. Marble must be installed on level floors.

Administration system and skills to control teams and materials.

Made use of offsite warehouse to receive flooring materials and remotely pre-cut to use.

Ken Siders

Environmental Testing & Assessment at Word of Life Church

Offers a unique service of assessing the building from foundation to roof. Ken considers the building to be a machine. Does a complete inspection not spot inspections.

Considers cause and effect of causation. Investigates both preexisting and latent damage.

Consider your clients carefully, problems at the beginning usually means problems at the end.

Verify your conclusions.

Develop a reference list by category: schools, churches, office buildings, hotels, etc.

Establish a basecamp when moving in catastrophe zone.

Have a Starlink antennae

Obtain an anchor project in the cat zone.

Offered to be both remediator and environmental consultant.

Look and act responsible and trustworthy.

Used a remote office in different time zone to handle daily communications.

Used a further remote estimating team in Hawaii to create the estimates, so estimates would be available the following mornings.

Project challenge: 30,202 sq ft. Modified bitumen roof installed atop 3" of roofing foam. Many HVAC units installed on roof. 178 roof punctures due to flying roofing tiles. No roof vents. Researched the foam product as was able to calculate that 37,000 gallons of water was entrained weighing 154 tons.

Insurance carrier in no hurry to replace the roof.

Church wanted to stay open to assist the community.

Patched the roof.

Roof begins to bubble due to release of entrained moisture. Good documentation and recordkeeping establish that previously dry areas of building are getting.

During a business meeting, the roof started spurting water.

“Concrete Bob” Higgins- Complications when drying concrete.

Lessons from 40+ years of gaining knowledge, losing knowledge and gaining it again. Know thine enemy.

Calcium hydroxide.

Caustic soda solution (sodium hydroxide) acts as antifreeze in low concentrations, caustic soda solution can freeze at above 212°F. Caustic soda solution does not evaporate.

Phases of water: solid, liquid, gas, adsorbed and absorbed.

Higher concentration of salts lowers RH.

RH is irrelevant of whether you will have a floor problem, which is why concrete doesn't dry.

ASTM F-710, preparing concrete floors to receive resilient flooring.

pH of a floor is not relative to concentration (sodium carbonate).

pH and alkalinity are not corresponding numbers.

Gradient in concrete is BS with changing conditions.

Concrete manufacturers are experimenting on us and are providing deficient products.

Colloidal silica is being added to concrete.

“All concrete will crack, curl or warp.

Plastic reinforcement in concrete causes uniform cracking.

Concrete deforms as it ages.

Vapor pressure & hydrostatic pressure problems don't exist. [1965 Brewer establishes moisture migration of concrete slabs on ground (DX089) Portland Cement Association]

1 square meter of concrete contains 200+ gallons of water. 100% RH in same space takes only 2 ounces of water.

Saturated salt solution. Some salts are unstable.

Critical humidity threshold- is when salt will absorb moisture.

The critical relative humidity of a salt is defined as the relative humidity of the surrounding atmosphere at which the material begins to absorb moisture from the atmosphere and below which it will not absorb atmospheric moisture. Wikipedia
The longer the concrete floor has been down the more likely it is to have a collection of salts.

Dr Ralph Moon- Don't fall prey to MUS

It's all about science, every building material has science behind it.

The scientific method

- Define a question
- Conduct research
- Propose hypothesis
- Perform experiments to test hypothesis
- Data/analysis
- Draw conclusions

Cutting logs of wood in different directions to improve response to moisture. Rift sawn wood is the most moisture resistant. The Forest Products Lab (USDA) conducted research on aircraft propeller blades that resistant warp, twist and unbalancing in 1919.

Duration of loss, Experiments designed for worst case scenarios.

- OSB expands 30% in exposure to high RH.
- OSB sheathing around windows is known to cause window failure due to damage to windows from the pressure of expanding wood (140 lbs per square inch)

Wet floors from leaks

- Elapsed time from leak to when noticed?
- Which materials express moisture the most?

Science requires teamwork. Tap testing tile floors and recorded sound. A large list of contributors.

When *Stachy* spores are present in air samples, they may have been aerosolized by leaf blowers.

Redefining the Expectations of Mold Assessment- Jeremy Beagle

Expectation- dry, sample and remove. Did we really need to remove?

Testing is secondary not primary.

Limited detailed reports with little scientific support and guidance.

Data moisture measurements

Sampling should be interpreted by the author of the report

Protocols should be site specific. The where, the how much, and the how?

ASTM has published a mold assessment standard that is not well known.

Origin- where did the moisture come from?

Cause of moisture

Evidence based conclusions observation and measurable data-photos-
measurements.

Observational measurable data sampling

Mold assessment not sampling.

Dry, sample and remove. Why dry and then tear out?

Structural drying- Inspect-Document-Dry

S500-if found, stop, containment, remove not on floor,

Associated sampling-spore traps. Air sampling should be done in breathing zone
not on floor.

What is the purpose? The sampling industry needs a purpose.

What is assessment being used for need to challenge the status quo to provide
value.

What is old is new again- Pete Consigli

Overthinking?- How to put a price list together.

The Greeks said we need a revolution every 20 years in order to stop corruption.

Estimating & pricing methodology- early computer estimating programs PES (and CompUclaim).

Who is your customer? The person who guarantees your payment.

What method of pricing will you use: unit cost, T&M or a combination of both.

Simplicity avoids the perception of nickel and diming.

Is an estimate required? Will you collect the deductible? Contract? Asking for the deductible may affect job dynamics. Firm price- we'll live with it.

Minimum price with open items & supplementals. Not to exceed invoice upon completion. How much does it cost? Out of pocket expenses, adjuster authority or reserve. Property manager wants estimate or wants to use own staff, tenant, interpretation or curiosity.

Tomorrow's job may depend on your last invoice.

Unit cost base on T&M, cleaning & Restoration Services, Reconstruction & Remodeling

Estimates & Invoices

T&M requires contractor integrity, effective management of project, paper documentation, timely communication.

Painters hourly rate based on portal to portal, 5.5 hours production per day.

T&M based on actual time is usually less than unit cost.

Pricing, minimum charges, undesirable assignments, extended service areas, prompt payment discounts, surcharges for high risk, difficulty, HAZMAT exposure.

Company policy decision- off hours response. When do you charge O&P, volume discounts, eight billing categories- service vehicles, availability for "off hours"., labor, machinery used for restoration processes, cartage/disposal. Materials, specialized equipment usage, in-plant facilities use

Intangibles

Increased exposure, technical expertise, guaranteed workmanship, warehousing for "peak periods".

Dray(age), emergency response, motivational and legal considerations, special communications (look at other industries) Glass industry Labor-portal to portal-

Different labor rates for project manager, restoration technician, supervision, other considerations-policy for overtime, double-time. Surcharges for high risk and HAZMAT. How to charge for project management and supervision? Machine time-cartage disposal-

Develop a list of most commonly used items: factor in cost to purchase and inventory products-drying equipment- extended usage discount? Monitoring is separate charge: set up- monitor-remove

Improve our collective image, create goodwill for the industry. Integrity, fair pricing, be nice. Be received as a good guy. The 2 biggest costs are finding work and finding employees. Ralph Moon suggested adding a Health & safety-line items. Marty King-selling a pizza. Would you like pepperoni on it?

DAY 1 MAIN SESSION:

Ralph Moon- What is technical competence, why is it important, planning for the day you get sued or are deposed...what do you do?

Professions have unique languages; engineering language is different than biology. Building materials have unique languages as well. We have a challenge to communicate and train the next generation.

Professions & disciplines experience change, adopt, and anticipate.

What comprises technical competence: Knowledge, skills. Problem solving, communication.

Where are skills acquired_ university, mentoring, courses, military professional relationships.

Am I ascending in my profession, if not what can I do? More industry involvement and participation, and more profession related fun.

Technical competence- Trades, training, mentorship, young people learn trades through mimicking not the science.

Professions learn and attain through technical conferences.

During a deposition be confident and competent. If queried, what were you told to do? Experts are never told to do anything.

Why are you doing it? Did you prepare a scope? Anything you should or haven't done?

Advancing knowledge- Proper training in health and safety, tailgate session? Was the leader competent? What were the project weaknesses that you encountered that may be exposed during deposition or court (e.g. moisture meters responding to metals in corners). Any bias involved in the job? Were you formerly trained on the equipment, calibration, the differentiation between meaningful and flawed measurements. Have you read the manual or instructions? Relative digital meter reading of 95 isn't 95%. Green Book how to categorize sampling strategy?

ATP sampling can be a liability. ATP measures cleanliness not types of microbes present.

Proper use of cleaning and decontamination agents?

Was there a filter in the dehumidifier? Did you calibrate the meter, how did you do it? How do you know the hydroxyl generator is working properly? Why did you include photos from the infrared camera.

No consequences for being ignorant.

Are mold and algae the same?

Problem solving. Cause and origin.

Have you ID'd the source of damage? Can you explain why there is mold in the attic that is sealed with foam insulation?

Why is there an odor in the laundry room above the crawl space? Do you have a technical basis for your finding?

Technical competence communication: stay up to date by attending conferences-develop good speaking skills, an attribute critical to selling your ideas-makes you enthusiastic. Winning, technical competence will extend your radius of influence.

Employers-keep your axes sharp, regular technical training, encourage employees not participate in upcoming training by sharing stories, New equipmentvrequi4s training, training builds user confidence. Visit manufacturers: gypsum, doors, windows, roofing, flooring, plant tours. Practice deposition skills.

What's at stake?

In smaller firms' professional isolation feeling trapped, loss of enthusiasm, distraction, demotivated, frequent requests for salary adjustments.

Summary:

Technical confidence is a lifelong pursuit. Employers who elevate employees are confident employees. Create attractive places to work, company ambassadors, employees leave and start their own firms. Technically competent people are humble. Enthusiastic to share their knowledge. Company culture.

“Concrete Bob Higgins- What you need to know and expect in drying concrete, etc.

In 1985 Bob was an expert on concrete at the Del Coronado Towers in San Diego, CA where his extensive knowledge and experience with concrete and concrete industry standards, saved the day when he recognized that standards being referenced in the litigation couldn't be enforced because they didn't exist at the time the concrete was poured.

Understanding moisture analysis calcium hydroxide plus sodium chloride improves water solubility.

An NBA game needed to be postponed when high room temperature caused atmospheric moisture to condense onto the basketball court over a frozen hockey rink created condensation court.

A measurement of moisture in concrete is not a conclusion, we need to find out the how and why.

One cubic foot of water requires 264 gallons to fill the void space and only slightly less than two ounces of water to reach 100% relative humidity.

Relative humidity probes measure relative humidity in vapor form in the available airspace of holes drilled into concrete.

Nearly all surface coating failures on concrete are created by moisture within the top three quarter's inch of the concrete surface

Chasing the argument

Everyone wants a fast project turnaround. Today's cement has a finer grind. 1950 concrete is 500% less permeable than today's. Heat interferes with formation of cement.

Critical humidity thresholds moisture may be captured and not available to concrete. “The critical relative humidity of a salt is defined as the relative humidity of the surrounding atmosphere at which the material begins to absorb moisture from the atmosphere and below which it will not absorb atmospheric moisture. Wikipedia”

Ionic dew point of salt.

Don't coat anything closer than 10% to do point ASP ME96 calcium chloride is 18%

Higher alkalinity equals higher resistance to drying

Challenging: notoriously inconsistent nature of concrete, differences in aggregate size shape and chemical composition.

Varying constituents in concrete that have different responses to moisture.

Alkalinity is a given within concrete.

Even as the concentration, location and migration of such materials remain a challenge.

Concrete hysteresis

Howard Brickman- Wood Science and Psycho-Metrics

Wood tech water fundamentals basic science meaningful observations

wood handbook FPL Madison, Wisconsin understanding wood and identifying wood by Bruce Hoadley, Taunton press

understanding physics by Isaac Asimov

regurgitating bad information is not an effective strategy

professionals use technical terms correctly

not a believer in the C word, consensus.

Fear pushes us to consensus- pack mentality, gut feeling, don't follow the crowd when you feel nervous, or sick to your stomach or feel the cause acts are coming, emotional response is not a useful response to technical information

Response to technical information:

magic words-shrinks and swells-cupping/concave, crowning/convex, tangential, radial, longitudinal, coniferous, deciduous, growth ring, early wood, late wood, ring porous, diffuse porous.

Absence of evidence is not evidence of absence. Trees grow and wood flooring shrinks and swells. Wood flooring is not a living breathing thing. There are no live cells in a wood floor.

The mechanics of moisture content: heat goes to cold, wet goes to dry. RH equals moisture content-delta moisture content shrink/swell.

Mathematical formula is shorthand for expressing a relationship.

Equilibrium, we think about it-everything measures plus or minus 1%.

Water can be a solid liquid or gas. Water moves through materials by capillary action or vapor diffusion.

H₂O vapor/gas dry bulb, wet bulb, dew point, relative humidity and specific humidity-wet bulb depression equals difference when installing.

Contact angle: a low contact angle is when a droplet of water sits in one place on a surface, a high contact angle is when the droplet spreads over an area.

John T. Hull- Best Practices for Commercial Roof Inspections, Use of Moisture Locating Technologies and How to Interpret the Readings to Spot False Positives.

Why roof assessment and moisture surveys are important. Structural risks associated with unknown conditions, indoor air quality concerns, and thermal efficiency requirements require a strategic approach to roof assessment and moisture surveys. Many roof surveys and assessments today are qualitative or comparative in nature with little or no quantitative data verification. As an industry we must understand that the roof is the lid to a building and as such, is the front line in protecting the building interior from the environment including moisture protection, providing thermal protection, and indoor air quality.

A building's roof is like the seal to an envelope. It's meant to close the envelope securely, keeping the contents safe from outside elements. In the case of most commercial, industrial or hospitality institutions, roofs are usually flat, or low-slope. The importance of the roof to a building is paramount.

Problems with Wet Roofs • Shortens Useful Life of Roof – Expensive Asset • Higher Energy Usage and Expenses (Reduced TRR) • Re-wet Interior After Drying • Potential for Interior Mold and Mildew Development • Indoor Air Quality- Potential Respiratory Issues for Occupants • Interior Damage to Building • Compromised Structural Integrity

Roof Assessments Methods and Tools • Visual Inspection • Moisture Survey • What do the meters/devices tell us? • Other Physical Testing • Adhesion • Uplift – Pullout • Probe Seams-laps

Choosing Your Tool and Method. It is important to realize that not one technology or method should be considered a “one size fits all” for conducting moisture surveys. Equipment requirements and methods change with: • Roof Thickness • Roof Type • Building Use • Roof Deck Type • Weather • Environmental Conditions and More

Infrared Thermal Imaging Cameras • During sunny days, the sun radiates energy onto low slope roofs and into the roof substrate • After sunset, the roof radiates

the heat back into the atmosphere • IR thermal cameras read thermal energy patterns emitted from the roofing materials and convert them to visual images • Wet materials will typically emit more heat creating anomalies visible to the IR camera. • Infrared Thermal Imaging Cameras • Infrared thermal imaging cameras are a good tool to quickly view a large area and locate thermal anomalies • Thermal IR cameras do not detect water...only temperature differences • Results are greatly affected by surface and environmental conditions.

Infrared Thermal Imaging Drones • Efficient for quick survey of large areas • Thermal anomalies should be visually verified at a minimum • Roof thickness and type must be known • Common Sources of False Positives/Negatives reflections, debris, ponding water, exhaust, unknown roofing components, White highly reflective roofing systems • Roofing systems installed over foil-faced insulations • Heavily ballasted roofs- gravel • Vegetative roofs • Roofing systems installed over lightweight concrete decks with retained moisture from installation • IRMA Roofs (Inverted Roof Membrane Assembly) • Highly reflective aluminum coatings • Non-insulated roofs and relatively new roofing system installations with closed-cell foam

Some Situations Which Might Affect Infrared Survey Results • Underdeck heating or cooling • Venting of hot fumes • Daytime shading caused by trees, billboards, adjacent buildings, clouds, etc. • Reflections • Windy conditions at roof level can cause irregular readings due to convection across the roof surface • Daytime temperatures • IR camera resolution • Infrared scanning must be conducted at sunset or night.

Nuclear Gauges • Nuclear gauges use a radioactive isotope to emit a low level of high-speed neutrons aimed at the roof from the roof surface • When the neutrons collide with hydrogen contained within water held in the roof, the neutrons slow down, indicating moisture • Read 8" max depth • Nuclear testing is done in a grid pattern, typically 5X5 or 10X10 • Commonly performed on gravel roofs

Electrical Impedance

Impedance scanners, such as the Tramex Dec Scanner, are placed directly on the roof and send a safe electrical current into the roof • If the material is wet, the

material will produce a higher relative reading than if the material were dry • Impedance scanners can not only identify wet insulation, but interply moisture, as well as free water at the deck level

Verification of Relative or Comparative Data • Visual Findings (Observations) • Comparative/Relative Data • Quantitative Data – Verification

SUMMARY

A roof moisture survey is the forensic act of studying a roof system with visual, non-destructive and/or destructive methods to determine if a roof system contains moisture. Several methods and technologies exist to conduct these types of inspections including- • Electrical Impedance Scanning • Nuclear Gauge Studies • Infrared Thermal Imaging

Roof Assessment and Moisture Surveys Should be Part of Any Building Envelope Failure Assessment- Hurricanes, Tropical Storms, etc. • Wet Roofing Materials Can Impact Indoor Air Quality, Building Thermal Efficiency, HVAC Engineering/Sizing, Building Structural Safety and Slow Drying • False Positive and Negatives are Real – Use the Appropriate Moisture Detection Technology and Verify Findings With Destructive/Quantitative Testing • Good Reports Should be a Compilation of Visual Observations, Relative or Comparative Data, Verification or Relative Data With Quantitative Testing, and Easy to Understand (Worker Friendly) Moisture Map and Findings • ALWAYS establish a known baseline (MC/RH) to compare relative readings to the baseline.

Andrew Rynhart- Separating Fact from Fiction in moisture testing

A sling psychrometer never goes out of calibration.

Capacitors respond to either resistance or impedance.

Moisture measurement may be either quantitative or qualitative.

Qualitative measurement information is often useful; wood is an exception.

For moisture mapping applications switch the Tramex to shallow depth setting.

WME- Wood moisture equivalent. Protimeter has developed a chart which provides Wood Moisture Equivalents.

During the construction of the London Underground the wood moisture equivalent of concrete was measured by drilling a hole into the concrete and then placing a suitably sized wooden dowel into the hole and allowing the wood to equalize with the concrete. The wood dowel was removed and a gravimetric test was done to attain the WME.

WME- Wood moisture equivalent. Protimeter has developed a chart which provides Wood Moisture Equivalents.

		Equilibrium moisture content - %mc guidance values						
Environment or material condition	%rh	generic wood	generic plaster	generic brick	generic cement mortar	generic sand & cement screed	generic concrete	Protimeter WME
safe air dry	25	6						6
	30	7						7
	35	8						8
	40	9						9
	45	10						10
	50	11						11
	55	12				4.7	3.9	12
	60	13				5.1	4.2	13
	65	14	0.1	1.0	1.5	5.5	4.5	14
	70	15	0.2	1.3	2.0	5.9	4.8	15
at risk	75	17	0.4	1.6	3.0	6.4	5.2	17
	80	18	0.6	2.4	4.0	6.8	5.4	18
damp	85	20	1.0	3.0	5.0	7.3	5.7	20
	90	23	1.5	4.0	6.0	8.0	6.0	23
	95	26	2.2	5.5	7.7	9.0	7.0	26
	100							27 28 relative relative relative 100

Protimeter WME - wood moisture equivalent. This is the theoretical %mc value that would be attained by a piece of wood in contact with and in moisture equilibrium with the material under test. Protimeter WME measurements can be used directly to establish if materials are in a dry, at risk or damp condition as the critical %mc thresholds for wood are known.

Concrete is not homogeneous.

Gel bridge testing- The gel bridge test is an accurate method for measuring the amount of moisture in concrete. Because radio waves are absorbed by water molecules, moisture content of concrete can be determined by passing radio waves through the concrete and recording how the wave is absorbed.

JOE SPURGEON- ESSENTIAL ELEMENTS of A PROFESSIONAL FORMAL REPORT

If you want a defensible report, write a quality report.

Defensible report writing is critical.

Documenting what time you started the sample, proves that you took the sample before disturbing the indoor environment.

- If it wasn't documented it didn't happen
- The report may be the only thing occupants, insurance company, or attorney will see.
- The report documents condition, the inspection process and the results of the inspection.
- The report informs about the significance of the findings.
- The report communicates information.
- Data in the report is usable and actionable.
- When you write a report you may be called upon to defend the report in either a deposition or during a trial.

Huey Miller, Jr- Catastrophe Mobilization (presented by Pete Consigli)

Huey Miller, Jr is a second-generation restorer. His father Huey Miller, Sr has been involved with the ServiceMaster organization for 45 years. After completing college, Huey Miller, III joined his father's business.

Louisianians don't like and don't trust outsiders.

Huey Miller's work responding to catastrophe's has mainly been in the role of a subcontractor.

Pre-Catastrophe Preparation Tips:

- Financing ("cash is king")
- Expectations
- Generators
- Eminent domain (In cases of emergency the government can legally commandeer your generators, etc. It is small consolation that you will get paid for it eventually.)
- Logistics
- Pick projects carefully.
- Choose partners even more carefully and win/win together.

Jeremy Beagle- Risk Management

Risk management- Frequency, money, severity, hazards, events and consequences.

Competent AIHA definition

Certification-may have no accreditation and/or no CEC's

Licensure- minimum field experience

PRV-air sample clearance, free of visible mold, confirm remediation protocol followed. There is no definition for normal fungal ecology.

There is no mold clearance standard.

Air samples don't reflect the quality of remediation categorization. Wind driven rain.

Weaponization of standards language

ATP- you don't know what you are sampling. ATP is an "indicator of cleanliness only".

Case study of abuse.

Townhome buildings

Soffits blown off of townhome buildings.

There was no interior visible water damage.

One sample taken- Cladosporium, 2 most common Bacillus species, yeast found.

Limitations of data

Mike McGuinness- Risk Communication & Conflict Resolution

4 Ps- people, pathways, pressure & pollutants

Responding to community outrage. Three pesticides: chlordane, aldrin and dieldrin were found on the grounds of a school in New Jersey some distance from the school.

Local news media picks up the story and sensationalizes it. Then, under pressure from his constituents, the mayor of the town hires an environmental firm who uses sampling inside the school to make their determination and recommendations. Cleaning the school was among the recommendations made.

The first environmental firm did not perform a TCLIP test. What is TCLP Test?- TCLP or Toxicity Characteristic Leaching Procedure is a chemical analysis process used to determine whether there are hazardous elements present in a waste. The test involves a simulation of leaching through a landfill and can provide a rating that can prove if the waste is dangerous to the environment or not. This rating can dictate the waste management methodology that the company adopts to dispose of the waste afterwards.

Mike's firm was then hired. Mike took 6 samples from the HVAC system. Mike brought in a team of experts in order to try and calm the situation.

References for dealing with these issues:

- Responding to Community Outrage: Strategies for effective risk Communication by Peter Sandman
- Risk= Hazard + Outrage, Peter Sandman
- Successful Conflict Resolution helpspring.org

When queried about what he does for a living, Mike McGuinness' answer is "Building pathologist".

Angela Bajramaj- Contracts, AOBs, Collections and Preventing “Going Legal”

Collections strategies for restorers, from cradle to grave, setting up for successful collections and going legal

Questions:

Where is the money coming from, you need good contracts

Key players-landlords, tenants, HOAs

Is it a covered loss?

If not a covered loss, can they pay?

Manage expectations?

Communications:

- Good documentation- embrace the technology
- Encircle-real time video with narration and written
- Belfor- data collection
- Enforce regular communications.
Schedule of required performance deliveries schedule.
- Projected completion time.

Dispute over delays

- Integrate payment expectations- advise client that timely payment keeps the project moving forward
- Document the discussions, conversations.
- Remember work e-mail is not private
- Get signed change orders-even for \$0.00 change orders
- Obtain signed certificates of satisfaction

Have a collection plan-

- send invoices promptly
- follow up call did you receive invoice and do you have any questions
- when can we expect payment,
- gradually escalate if necessary

Lien rights and AOB's

- AOB clause in the contract is an important tool
- Going legal- involves adhering to strict deadlines, filing lawsuits, payment deadlines, statutes of limitations, etc.
- What is the amount of money owed?
- What is the strength of the case?
- Consider: potential costs, impact on relationship, potential exposure, opportunities for compromise,

Mitigating cost of dispute resolution-

- Provide organized and complete information- timelines.
- Pre suit mediation- gather info- third party opinion of the value of your case
- Fee shifting- contractual, statute or court rule-
- Offer of judgment rule-

Potential causes of action-

- breach of contract,
- unjust enrichment,
- quantum meruit,
- conversion or statutory conversion,
- lien foreclosure (threat of lien may be more powerful than lean)
- Tortious interference

Litigation process-

- complaint and the answer,
- discovery,
- role of experts.
- mediation,
- facilitation,
- trial

When to compromise when to compromise and when to fight?

- Cost of proceeding,
- likely outcome,

- fighting on principle,
- setting industry precedents.
- 2010 Supreme Court Citizens United case-allows unlimited political connections- resulting in a power disparity.
- Impact litigation-for the good of the industry restoration.

Tips:

- Always be careful about what you put in writing!
- Problematic clients include hoarders who often have mental issues and can be problematic. Doctors can also be problematic.
- Ask for remediation proposal from the mediator as to where the case will settle?

John Isaacson- On scope + On Budget-On Time Simple or Complex

On/ off scope-

Scope drives the estimate...Drives the contract...Through data capture...Technology...
Accurate data input.

Communicate-negative client or carrier

Agreed scope- the understanding of what is or is not in the contract.

Project management is an organizational issue: the project manager needs support and a production team

The scope of the Project Manager's project is determined by others. Whether the project is on/ off time is based on parameters set by others which may put the project manager at a disadvantage/deficit. This is an organizational issue not a project management issue.

People, projects, process-

Scheduling-preproduction, production or adaption

Procurement- material

Sequencing- integrated CMR- Gant chart- spread sheet

Customer- contractor needs to know the customers material selections. Customer selections may cause delays.

Top down- A task assigned to everybody, is a task assigned to nobody.

Process-scope clarity in preproduction, production project manager gets involved

Process-pre- production-

Project Managers shouldn't manage too many jobs

Weekly update-

- the percentage of each job completed
- the estimated date of completion
- what work was completed this week
- what is the plan for next week
- delays

- have we updated all parties

People are always the X factor

Project management is a customer management issue. Hiring burnt out contractors as Project Managers should be renamed Customer Management

PM Training- polite greeting, your name, relevant personal link, then manage expectations

Project Management

- is Organizationally dependent
- model how to do it
- look in the mirror

When a project manager delivers a project on time and on budget; they will be expected to do better next time. Delivering the next project faster and at lower cost; he will get less money and less time.

Pete Consigli- Restoration Pricing Guidelines 1998

The overall plan is coherent marketing.

Positioning book by RIESE and trout.

Restoration is always an expense.

Scope dictates price.

Liability affects the scope.

Poor communication increases liability.

The customer fears being overcharged.

The contractor fears losing control of the loss.

Recommendations provide assurance.

Factors determining successful restoration: perception is reality, don't tell them "Sell them", establish the need first, precondition the customer's mind, then gain the confidence of the clientele.

Establish a professional network you can rely upon.

The need sells the price.

Publish and circulate a personalized restoration pricing guideline. Leverage your business strategy as either a generalist or a specialist.

Defending yesterday is far riskier than making tomorrow

John Lapotaire, Large Loss Consulting

John Lapotaire does not support sampling first. John's firm prefers to stay local and works in Florida only.

Daytona Plaza resort and spa circa 1888.

September 29, 2022, receives 19 to 21 inches of rain-82 mile per hour winds
40,000 square feet (15,000 square feet spa, 16,000 square feet exhibit space).

Focus on re-occupancy January 1, 2023. The building owner and staff remained in the property during the storm. They are a good team, who was prepared to take over the project following remediation. The building was complicated due to "crap being built upon crap".

John walked the building to determine the level of damage. Floor 14 the top floor looked good until John went onto the roof, which was badly damaged by the impact of wind driven roofing tiles. Knowing the roof's vulnerability to leakage due to impact damage; John determined that the best approach would be to remove the contents to protect them from water damage and mold. John divided his staff and crews into team leaders and teams. Each team leader and team were assigned specific tasks. John's crew encountered elevator difficulties. Two days later the roof was cut to allow water to permit water to exit through the scuppers.

John's scope was for visual clearance. Interior tenant separation walls needed to be removed to reduce the requirements for drawing equipment. The insurance carrier wanted mold sampling to be performed in the building, John disagreed. John's clearance criteria were no elevated airborne particles, no elevation of moisture, and no remaining areas of water damage. According to

Hurricane Nicole makes landfall on November 10/20/22. Areas that had been remediated needed to be re remediated. John performed top-down clearance of the building. John left the owner and his management team everything they needed to complete the remediation.

Ken Larsen- Navigating Florida Waters, Essential IAQ Practices **in water...**

According to Ken Larsen, IAQ is purity of air. IAQ has an impact on human health. Ken aims to improve the understanding of IAQ's role in the safety of property damage insurance claims. Florida has state specific regulations for water testing and categorizing following water damage. State Licensing is required to take air samples, no licensing is required to take water samples. According to Ken, it is more important to test the water then it is to test the air. You need to be sure your IEP understands the subject. In Florida mold licensing is required and there are sketchy inspectors. It is important to test for the degree of contamination not test for mold.

Categories of water is an "IICRCism". There is criticism of the use of ATP for determining the type of contamination.

Case Study: Charles Edison mansion in NJ, where 6 sump pumps failed, 2 feet of water entered exposing the museum level collection to water damage. The custodian of the building turns in an insurance claim and the insurance carrier sends out a house cleaning company to respond. The house cleaning company was inexperienced and unprepared to handle a water damage situation of this complexity. Subsequently, Ken, a personal property expert, and an industrial hygienist were called in to consult.

Case Study: The tale of a job gone bad. A pipe breaks in a low-income housing unit resulting in water damage. A restoration contractor installs fans and dehumidifiers into an occupied apartment. When drying equipment is operated it is common for the temperature to rise. Several days go by and the building manager enters the apartment and finds the occupant dead. The coroner publicly states that the restoration contractor killed the occupant and that the cause of death was hyperthermia. The coroner did not mention that: the occupant weighed 350 pounds, had high blood pressure, coronary disease and was diabetic. The restoration contractor notified his insurance carrier of a potential lawsuit.

Ken Siders- The Expanded Role of an IEP

Imagine a world where property damage is properly assessed and properly presented so that the insurance company can properly fund.

IEP's must consider more than mold.

IICRC-fungal ecology is determined to be 1, 2 or 3.

There are differing opinions on sampling and testing methodologies. There are differing opinions on the assessment work product. There are far too many worthless reports. Ken's approach to assessment and report preparation is holistic. After conducting a holistic client interview. He looks at the building from foundation to roof and including: water damage, fire damage pre-existing defects, hazardous materials (e.g. asbestos and lead), mycotoxins, etc.

Case Study: A high-end condominium building where the young child of an occupant goes into respiratory distress and is taken to the emergency room. The parents are convinced that mold is responsible for their child's health issue. Ken conducts an interview, and when the parents are asked if anything has changed or is different, they advise that they purchased new furniture made in Tahiti for their child's bedroom. Sampling and analysis reveal that the furniture stain was emitting high levels of formaldehyde.

Case Study: A mold job in South Florida. The client wants mold sampling. Two-year-old home. RH remains at 68% no matter what. The dryer exhaust was disconnected and was dumping humidity into the attic.

Case Study: Baby getting sick in the bedroom of a rented home. Ken's investigation finds that the home had previously been the site of a clandestine meth lab. Painting and flooring replacement was all that was done to the home. Sampling and analysis revealed high meth contamination.

Case Study: Chinese drywall. Hints were: AC coils turned black; copper pipes turned back. XRF scanning for high strontium and sulfur levels.

Case Study: Tornado in Panama City Florida. High coliform counts found in a home and attributed to a sewage treatment plant 6 miles away.

Josh Bachman- The State of the Industry on Software Integration and Best Practices for Estimating

The restoration industry is a maturing industry. The market is saturated with software alternatives. The available software falls into two categories one solution software versus specialization software. One solution software is a Jack of all Trades; begging the question: does integration really exist. CoreLogic, Encircle, PSA, and DataHub; the influx of capital into these programs hasn't really improved products. The existing software is confusing and frustrating; software technology is not a final destination, rather it's something to work towards.

What was yesterday's differentiator is today's common place and tomorrow's left behind.

The trap of implementation is a common point of failure. The myth of 100%. The need for a product champion. The magic pill that will make it better.

Crawl, walk, run- whiteboard to spreadsheet to software. It's hard to know what you need until you know what you need?

The influence of AI-- Microsoft power BI

Documentation

What's old is new again.

The 4C's of documentation: Consistent, Clear, Concise, and Clean.

Consistent- every single time, the same way every time.

Clean- debug.

Advantage of remote accessibility.

Kelvin Rynhart & Ryan Stanley- Update on Cloud Based Moisture Testing

What is remote monitoring?

- The ability to obtain jobsite information remotely.
- This is accomplished through the combination of sensors, hardware and software.
- The sensors are individually labelled according to location.

Concern over resilience?- Resilience in remote monitoring is provided through in-house recording in the event of a power failure or battery failure.

TRAMEX is adding:

- Meter readings
- Integration with dehumidifiers
- Integration with reporting systems

Today's restoration contractor needs a full tool box to remain competitive in today's marketplace. Remote monitoring is one of the necessary capabilities.

The Insurance Industry Sector Perspective Phil Rosebrook- Opening Comments

There are over 65 restoration industry technology providers.
There are several options for sourcing work, non-direct and direct.
Direct work has gone through 6 iterations:

1990's- restoration was becoming an industry.

Increased professionalism.

Kurt Bolden was a heretic who shook up the industry with his ideas.

“No-conflict strategy” Emergency water damage response and structural drying only, no repairs.

Paul Davis starts Prism, which later became Crawfords'. Insurance carriers liked someone managing their policyholder and their claims.

Program work started with the franchises who provided service contractors in multiple regions and many zip codes. Insurance carriers wanted service contractors everywhere they had policyholders, so programs opened up to include independent restoration contractors.

TPAs leveled the playing field by increasing the size of the tent to include independents.

3 Day Drying was a generic pricing solution to a global program. 3 Day Drying created tension and conflict in the marketplace. RIA hosts Donnybrook's in which both sides of important issues were debated publicly and respectfully. Sam Bergman and Dan Chavez, you can't serve 2 masters. Paul Gross (CodeBlue) opine's your client is the name on the upper lefthand corner of the check received for your services. Dave Osbourne and Craig Kersemeier, make your own decisions or the TPAs will make them for you.

Mickey Lee and Ken Larsen opine that the restoration should always do and advocate for what's best for the property. What is the computer telling us we should do versus What is the meter telling us we should do?

What is right? Protecting the health and safety of the occupants.

Technology is driving the next iteration, where data from the jobsite will drive decisions.

Due to CAT losses, insurance carriers are introducing deductibles 10%-20% of the loss in some markets. Carriers are concerned over how to manage high volumes of CAT claims.

Contractors must now be strategic and deliberate, doing the right jobs and right business strategies.

The restoration has been built upon emerging new technologies. The industry is going full circle. Old is new again. Professionalism, now defined as a clear and deliberate focus on the health and safety needs of the property.

Whether to participate in program works is the restoration contractor's decision.

Peter Crosa- Advice from an independent insurance adjuster.

Peter Crosa advises restoration contractors: “as long as they pay you, you can do the right thing for the property.”

Restoration contractors protect the interest of the insurer and fulfill their promise to do the right thing for the policyholder.

Restoration contractors should have both integrity and dignity.

When Pete Consigli started, restoration contractors had personal relationships with contractors.

Restoration contractors are becoming collection agencies.

Some insurance carriers don't do the right thing. Insurance carriers have hundreds of marketing people and high-power lobbyists. Insurance industry is second largest lobby; only Big Pharma is higher.

The residential insurance industry is at war with restorers. The carriers don't care about policyholders who make claims. Things get tense when estimatics came into the plan. Estimatics is the process of determining the cost of the damage to a piece of property or the value of the property PRIOR to being damaged.

High-tech insurance carriers are using the strategy of cashing out claims and not sending insurance adjusters to losses. While high level meetings between insurance carriers and adjusters are closed to outside, the big forensics firms do heavy private entertaining at these big insurance company meetings.

TPA's manipulate policyholders and restores. Some insurers are at war with policyholders. These insurance companies have reduced risks by transferring 40% to 60% of the risk back to policyholders.

Driving through the Florida coast is visual proof of this when you see the large number of blue tarps still on the roofs of homes and buildings.

One insurance company owns its own restoration company and their policy says that in the event of a loss this company must do your restoration work, known as “right to repair”. However, the restoration company is overwhelmed with work and can't respond for 90 days or more. This insurance company is suing policyholders who can't wait and are using other companies to make more timely repairs.

Restoration should consider:

- Can policyholders afford to pay me if the insurance company doesn't pay me.
- Restoration company should vet insurance companies especially the bad residential ones.
- Restoration companies should be prepared to play hardball when it comes to payment, especially payments over 60 days old

Parametric insurance is coming. Parametric insurers get rid of adjusters and water restoration contractors by installing their own water damage sensors in buildings. If a building receives 1 foot of standing water, the insurance company automatically sends a check, if it 2 feet of water the check is higher, etc. The burden has now been shifted to the policyholder. This is also being done on wind claims, reducing the rate of cost increases by cutting coverage and increasing deductibles.

Melissa Hastings, Accuserve Solutions- Managed Repair Programs and 3rd Party Administrators.

Melissa Hastings has a deep restoration background and experience. She grew up in a restoration business and worked for a major cleaning and restoration franchisor.

Managed repair programs and 3rd party administrators have become a significant part of the property claims industry. Insurance carriers look to TPAs for claims management.

Some managed repair programs have earned and are deserving of their poor reputations. Restoration contractors who have had bad experiences have warned others not to get involved with managed repair programs or TPAs.

Melissa's job is to: improve the contractor and policyholder experience.

TPAs, Managed Repair Programs.

Systematic Processing- knowledge is carrier specific.

Vendor supports management.

Single source communication & coordination of quality control.

More opportunities to work together.

Choice to figure out how to get along or not. Respectful of everyone's decision to participate or not.

What Accuserve is doing to be different. The right tools, the right equipment, to build defensible claims files. Many RIA members are getting 10%-25% of their work from TPAs.

How to manage profit between contractors and TPAs.

Understand the contractors need to make money.

Long term goal, build a strategy.

How can you be a good restoration partner with 3rd party administrators,

Want to learn

Want to collaborate.
Be a change leader.
Be more collaborative.'

Here is a solution:

Let insiders create change.
Vision-unify stakeholders in the property claims value proposition.
Create positive change.

Ramona Gallagher, contents expert and public adjuster- Personal Property

Ramona's 40 years' experience in personal property began in retail, where she gained familiarization with designer clothing and luxury goods. She then began preparing personal property inventories for clients.

She now represents policyholders and submits personal property claims for policyholders.

Personal property includes: clothing, jewelry, window treatments, appliances, chandeliers, furniture, vehicles, fine art, antiques, collections, etc.

Provenance can add significant value to antiques and fine arts.

Clothing designer's offer multiple quality grades: Good, Better, and Best. For example, the difference in pricing between grades of Ralph Lauren clothing can be significant.

Authentication is important. Fake "knock off" luxury products are abundant. When compared to the original, fake luxury products often have telltale deficiencies: poor stitching, substandard zippers, poorly cast and finished hardware.

It's important to know when to call in a specialized expert or specialized appraiser. It's equally important to know which specialized expert or specialized appraiser in a category to call.

In the event of a claim, knowing if the loss is covered under the policy?

Reasons to bring in an expert:

- To prepare a complete inventory of both salvageable items and items that are a total loss.
- Adjust personal property claim.
- Types of values.
- Limits of liability.
- Different types of coverages.

- Industry.
- Unique to job.

Ramona will be on a panel at the upcoming RIA along with Barb Jackson and Jay Van Deusen.

Andy “the BI Guy” Sall- Business Interruption the Invisible Claim

The Invisible Claim

1. Business interruption is often neither visually nor readily apparent. (You can't see lost sales nor customers that have gone elsewhere).
2. Situational Awareness
3. Action
4. Time is valuable

Business Interruption Claims Can be Hard to Prove

Insurance companies do not pay without documentation of the claim. Insurance companies will have their experts plug numbers into a model; this is to the policyholder's disadvantage.

1. Documenting the claim
2. Hemorrhaging cash.
3. Threat-size

In order to accurately portray the business interruption claim, you need to tell the policyholder's story.

A business interruption claim may be like a death in the family. Business interruption of a family business is like the loss of the breadwinner.

When compared to visible damage, business interruption is often out of mind and an afterthought. Procrastination is not in the policyholders' best interest. They need an expert, a high impact position player who can make the invisible visible so that the claim can be quantified and compensated.

Andy Sall neither pays nor accepts referral fees.

Z-Man- Andy, tell the audience about the molasses claim?

Andy Sall- A large tank farm that stored primarily petroleum products had a BI involving a tank of food grade molasses. The insurance carrier valued the BI claim at \$160,000. After Andy, explained the extra costs in handling a food grade product

including purchases of new hoses, valves, fittings, etc. the insurance carrier agreed to pay \$900,000.

Group Discussion-

Peter Crosa- Some insurers who suffered high frequency low value claims in Florida closed down their books of business and left the state. This results in a savings of marketing expense.

John Downey- *Why are so many restoration contractors resistant and hostile towards TPAs?*

Melissa Hastings- Some TPAs have been unfair and haven't done the right things on a person-to-person. They burned contractors, who as unsatisfied people do, told many others about their bad experiences. Administrators with IICRC water damage training, use their training and rely upon their interpretation of IICRC water damage standards to say we don't pay for that. When it is justified through documentation and standards, we will fight for it! Carriers want photos and meter readings to prove the equipment was on the job.

Phil Rosebrook- *Peter, it used to be easy to meet adjusters in their offices. Now we don't know where to find them. How can I meet adjusters?*

Peter Crosa- If you want to meet adjusters, you must attend monthly local and regional adjusters' meetings. Covid shut down these meetings. People miss relating person-to-person. Other vendors can also help you meet adjusters.

John Downey- *Ramona, would your services function well in a TPA environment?*

Ramona Gallagher- No.

Melissa Hastings- TPAs don't receive single trade claims. TPAs

Phil Rosebrook- *Melissa, during disasters when staff and resources are stretched thin, must contractors take claims to their detriment?*

Melissa Hastings- We have multiple contractors in each zip code who are on rotation to receive claims. TPAs suffer financial penalties when they return claims to carriers.

Question from the audience- *Would Andy work for TPAs?*

Andy Sall- No. TPAs would use a standardized BI model. Carriers rely upon big accounting firms to oppose Andy on large claims

Z-Man signing off

TRIVIA-

What is Viktor Bokataj's association with ABC's Wide World of Sports?

Answer: Viktor Bokataj's ski jumping accident represents the "Agony of Defeat".

Answered by: Don Weekes, Ottawa, Ontario Canada