



Ken Siders

Senior Environmental Consultant ETA Environmental
A Cautionary Structural Drying Tale
Show Number: 701

This week we welcomed Ken Siders, Senior Environmental Consultant ETA Environmental to discuss a Cautionary Structural Drying Tale. Consultants, restoration contractors, property owners and asset managers got some excellent takeaways.

Ken is the Senior Environmental consultant for ETA Environmental, with 20+ years in the building science restoration field. He is a teacher and published author and is an expert in mold, radon, Chinese drywall, meth lab cleanup testing, lead, asbestos, and many more types of building contamination.

Please give our audience a little background on you and your company? Ken was formerly a contractor. When the contracting market slowed to a stop Ken asked a friend who was successful in multiple business ventures what he should do? Ken's friend advised that "mold is the new asbestos", so Ken entered the mold industry in Florida. When Florida's mold licensing went into effect; Ken was grandfathered in. Ken works for building owners, asset managers and public adjusters. Many of Ken's clients are nonprofit organizations (e.g. churches, etc.) Many firms investigate holes in buildings; Ken and his firm investigate the whole building. From stem to stern, they prove what's going on in the building.

What type of business and building was involved? An active church that serves the community both spiritually and as a much-needed food bank for the victims of Hurricane Ian. The 30,000 sq. ft. building was originally a 4-screen movie theatre, then a telemarketing center.

Geographically, where was the loss? Ft. Myers Florida

What services did your firm provide on the claim? Environmental consultation.

How long after Hurricane Ian did your firm get involved with the project and what did you encounter onsite? Ken's firm was engaged three weeks after Hurricane Ian. His team found significant malodor, ceiling tiles disintegrated, numerous barrels inside positioned to catch water, impact damage to roof caused by flying debris, access panels missing from rooftop HVAC units, some HVAC units were inoperable. They tested the water and confirmed with lab analysis that Category 3 (e. coli and other pathogens).

The HVAC system is an integral part of the building; inoperable HVAC systems put buildings at risk. Ken's HVAC partner is responsible for inspecting the HVAC system and determining the remaining useful lifespan.

Ken opined that tearing the roof off was the best option, the insurance carrier dragged its feet. Using a Tramex® Roof Master moisture meter, Ken was able to moisture map the roof. Ken was able to confirm that most of the moisture in the building entered through 178 hurricane impact related roof penetrations. By determining the moisture absorption and retention capabilities of open cell foam from the manufacturer; Ken estimated that 25,000 gallons of water was trapped in the roofing. Using a Protimeter® Pro determined moisture content of various structural materials. The decision was made to allow the water to filter through the building naturally. Structural drying efforts could then be focused on those areas. Moisture monitoring was done daily.

The penetrations in the roof were repaired. Ken worked with a drying contractor to begin structural drying. LGR refrigerant dehumidifiers were used first. These units removed moisture at factory specs. When moisture removal dropped, desiccant dehumidification was utilized.

According to Ken, a less qualified consultant working for the insurance carrier told the building to discontinue structural drying. Soon after, when moisture levels spiked, structural drying was reinstated.

What is your role on this claim? To investigate water intrusion into the building, quantify the related damage and develop remedial protocols.

How does your firm price your services? The firm publishes a price list with hourly rates for Senior Analysts, Analysts, Admin, Sampling, etc.

What made this project unique? The roof system is a Modified Bitumen system with a 3.5 inch foam roof applied over it and then coated (Syntex).

Is corrosion a concern? Yes, Ken is concerned about corrosion of roof fasteners.

How did you calculate the amount of water entrained in the roof? Using a Tramex® Roof Master the roof was segmented into 10 sq ft sections. The saturation of the section was recorded, and a grid was developed with the noted saturation levels. The level of moisture content was calculated using the known absorption capacity of the foam.

How did you estimate the expected materials' drying time? In this case no expected drying time was calculated as the project was so complex.

Was roof replacement a consideration on the claim? Yes

Was bulk moisture removal attempted before drying? The moisture was entrained into the roof system. Removal and replacement of the roof was the only sure way to remove the moisture in an expedient manner. The roof replacement was not approved by the carrier.

What was the relationship between your firm and the drying contractor? We have worked for clients on multiple projects that this drying contractor has been hired to dry and mitigate.

Was the loss adversely affected by limited resources due to other local losses? The lack of local power was an issue, but the drying contractor provided generators to power the drying equipment.

How did you monitor the drying? Psychrometric readings were taken daily. Affected materials were also monitored daily.

Did the project conclude with a happy ending? The project is still ongoing as the carrier has yet to approve the roof replacement.

3-Quotable Ken Siders' Comments

- "I'm not here to argue, I am here to quote the S-500"
- Regarding the potential of preexisting damage... "it's here now"
- "Weather Liars"

Z-Man signing off

Trivia:

Name the term defined as follows, a dimensionless parameter that correlates with the proportion of water available for biological or chemical reactions and is related to the energy status of the water molecules in a given system.

Answer: Water Activity

Answered by: Darren Hudema, PuroClean Academy