



Martin L. King, ASA, CRD

Ed Light, CIH

Light N King Strike – Assessment of Smoke Damage

A remastered flashback episode with photos honoring the late Martin L. King

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On today's episode of IAQradio+ the pyronamic duo fire restoration pioneer Martin King and industrial hygienist Ed Light discussed the state-of-the art of the assessment of smoke damage with listeners. King and Light have developed a surface assessment protocol for use in evaluating fire related contaminants.

Nuggets mined from today's episode:

- Fire is an exothermal self supporting oxidation reaction. (King)
- Absence or presence of smoke odor is subjective. Smoke odor may have a strong emotional component. (King)
- Odor and peril related contaminant denote damaged condition. (King)
- Client satisfaction is the determining factor for restoration efficacy. (King)
- Smoldering fires create unique residue. (King)
- Traditionally evaluation has been based on visual assessment. (King)
- Restoration objective is no visual or olfactory evidence. There is no standard for the evaluation of the intensity of fire related particulate contamination. (King)
- Microscopy useful for evaluating particulate. Marty uses 100X magnification. For microscopy training and info check out the McCrone Institute, www.mcri.org/

- Their research and collaboration is litigation driven. (Light) Are critical of the misapplication of asbestos & carbon black testing for fire losses. (King/Light)
- Combustion particles are ubiquitous sources include: vehicles, fireplaces, combustion appliances, candles, etc. (King/Light)
- Prefer tape sampling to air sampling in most fire losses. (King/Light)
- Advocate that a grayscale be used to confirm surface contamination levels. (King)
- Gathering and cataloging background samples from the interiors of homes throughout the US. (King)
- Sampling strategy based upon: occupant interview, questionnaire, contamination sources, pathways and cleaning history, logic and common sense. (Light)
- Use particle count to calculate contaminant concentration. (Light)
- Some building occupants are more vulnerable to fire related particulate than others. (Light)
- Gas exposures are not well understood. (Light)
- Fire repair contractor commonly must decide between “ethical principles versus economic convenience.” (King)
- Adjusters that don’t understand fire repair shouldn’t be writing specifications. (King)
- PPE- Standards are often designed for worst case scenarios, a small minority of losses fall within that category. Excessive precautions and remediation is done in the majority of situations. Restoration first responders need to wear respiratory protection N-95, after air changes the risk is reduced 90%. (King)
- Tape lifts- it’s what on top that counts. (King)
- Air sampling is overdone. Not a great need for testing labs to evaluate fire related particulate. (Light)
- Fire repair has evolved based upon what works not prescriptive standards. (King)

- More data and information supports not needing prescriptive industry standards rather than needing them. (King)

Dieter and his mentor Yves Alarie investigated and studied airborne particulate.

<http://www.yvesalarie.com/>

King and Light were outspoken sharing how they really feel about issues such as air sampling, testing labs, industry standards with IAQradio+ listeners.

Today's Music: The Great Baltimore Fire of 1904, sung live by Ed Light