



## IAQ RADIO+

Show Number: 780

**Don Weekes, CIH, CSP, FAIHA**  
**Life and Times; Lessons Learned in IEQ and IH**

Good day and welcome to IAQ Radio+ Episode 780 blog! This week we welcomed back our most frequent guest, Don Weekes, for a special edition of our Life and Times series: *Lessons Learned in IEQ and IH*. For going on 20 years, Don has been a regular contributor to IAQ Radio. Over that time we have developed a strong friendship and professional relationship. Few people have given as much back to the indoor environmental quality community as Don and his wife, Lan Chi, who is a legend in her own right.

Together, Don and Lan Chi built and successfully sold a consulting practice that they operated for 13 years. Along the way, both have devoted countless volunteer hours to professional associations, industry initiatives, and causes that have helped advance the fields of IEQ and industrial hygiene. Join us this week as Don reflects on a lifetime of experiences, lessons learned, and contributions to the profession on IAQ Radio+.

**Nuggets mined from today's episode:**

### ***Work History***

In 1975, when Don entered the industrial hygiene field, his work centered on inspecting heavy industrial facilities (e.g. oil refineries, pharmaceutical manufacturers, steel mills, aluminum plants, etc.) for insurance carriers. He traveled across the USA by air carrying his necessary equipment with him. This was before the heightened security inspections following 9/11.

In 1983/1984 he attended a 2 Day IAQ event at Georgia Tech where he met and sufficiently impressed enough people that he was asked to join a committee. According to Lan Chi, when asked to volunteer Don is unable to say no.

### ***Malodors?***

While employed by CRC, Don became interested in odor technology. CRC was an innovator in odor measurement and technology. Don recounted an odor

investigation on Staten Island, NY where residents claimed exposure to a strong “cat urine” smell. The smell was traced to discharge from a facility treating wastewater from a chemical plant. Prevailing winds carried the malodor to Staten Island.

Don was a contributor to AIHA’s first odor detection book which is now in its 5<sup>th</sup> edition.

Don discussed complaints from southern California residents who were unable to sit outside due to odor emissions from a GM facility. Don acknowledged Richard Duffee as a well known and respected expert in odor investigation and quantification.

### ***Consulting***

Don began IAQ consulting took him across the gamut from large office buildings, schools and even residential homes.

### ***History of IAQ***

According to Don, there was no real focus on IAQ until the first energy crisis. From the mid-1990s-late-1990s people began feeling that the indoor air in their workplaces and homes wasn’t quite right. The Melinda Ballard litigation heightened awareness to mold.

### ***Sharing the blame***

According to Dan many things weren’t done right, both IHs and restorers made mistakes. Don attributes many of these mistakes to failure to keep up with research.

### ***ACGIH Publishing***

Due to regulation of asbestos, radon, and lead paint.ACGIH began publishing papers and writing books in 1999.

### ***Smoking***

When tobacco smoke became a focal point ASHRAE began writing a standard. Tobacco manufacturers provided committee members who resisted consensus and a standard was never published.

Periodically the biggest concern dominates the focus and overwhelms available resources in academia.

### ***Ai***

Don expressed concerns about Ai's growing role in environmental monitoring and decision-making. Ai monitors and sensors is often how we measure.

People unknowingly are drawn into participating in Ai when they communicate and express their opinions over the internet. Too often when we seek human interaction for a business transaction; the only option available to us is to interact with a robot. Banking and insurance are only two industries in which Ai interaction dominates.

### ***GenZ-***

Gen Z who work in offices are too mentally fatigued by technology to work overtime.

Gen Z who work from home are experiencing mental health issues from working alone.

### ***AIHA Connect***

- Larry Sloan, (Executive Director of AIHA) is taking a leave of absence effective 12/26. Larry will be available to AIHA for consulting.
- ACGIH and AIHA announced that the organizations are in discussions regarding potential unification and strategic merger. This isn't the first time these groups have discussed merger. Duplication of ongoing work on development and maintenance of TLVs and OELs could be streamlined.

### ***The DC effect***

Government research lab closures and employee layoffs put many researchers on unemployment. Government research projects have been shut down. Government researchers are no longer permitted to attend industry meetings/events. Young PhDs can't find jobs.

### ***Defining good IAQ with numbers***

A good idea, the variation in types, conditions and location of building stock makes the idea impractical. There are many definitions of good IAQ with none being universally accepted. According to Don, ASHRAE 241 is a strong starting point;

ASHRAE is conducting a search for a consultant to help with further work. Don is a 241-committee member. ASHRAE standards require continuous maintenance. Due to White House pressure; ASHRAE 241 was completed in only 6 months (a record). ASHRAE 241 is in public review, there will be numerous changes in the revision including updates to MERV filtration and active air cleaning sections. He noted that while there is potential for unintended consequences with new standards, follow-up inspections and system tests help address these issues.

***Why do you think the North American restoration and remediation market still leans so heavily on reactive, post loss assessments rather than continuous building health monitoring?***

Don highlighted the shift towards continuous building health monitoring, particularly in new buildings with integrated sensors, and expressed that this responsibility currently lies more with building owners and management companies rather than restoration businesses.

***ASHRAE news***

Jeff Littleton; ASHRAE's Executive Director is retiring in December.

***IAQ across the globe***

World views on IAQ are different. Smoking is prevalent in foreign countries. Greece- Hygieia Goddess in Greek mythology, personification of health, cleanliness and hygiene. Her name is the source for the word "hygiene". Recent IAQ event hosted in Greece.

Singapore- hosting IAQ Series event

India- there are 11 ASHRAE chapters in India. Many Indian ASHRAE members (fly 24 hours) to attend US ASHRAE conferences. They obtain and take guidance and regulatory information back home.

***CZs concern: Why isn't anyone researching and establishing baseline of indoor chemistry? Suggesting that researchers should first establish what normal conditions are before addressing specific issues.***

According to Don, there is no research money available to do it. Researchers are paid either by government or universities. Current areas of interest include: lithium battery fires, food and food processing and decarbonizing buildings. According to Don, the FDA is unavailable.

### ***Lessons learned from COVID***

Don was in Louisville, KY when news of COVID broke out, attendees were upset that NCAA basketball tournament was cancelled. Canada's PM, Justin Trudeau told all Canadians traveling abroad to come home. Dulles Airport was closed. Don stresses that potential health risks must be addressed at the source not once they are on our doorstep. While the new strain of Ebola doesn't spread easily, it's likely that it has already spread globally which Don considers to be a Big Deal.

### ***Business Exit Advice***

Don and Lan Chi sold their business in 2017. When sold, the business had 5 employees. Don advises retiring to maximize management of savings and assets. Selling a business is an exercise in accounting. Buyers seek to purchase the economic engine of a profitable business that demonstrates consistent profits over several years. Avoid selling to competitors who may lowball you. Find buyers outside their direct competition who can benefit from their specific expertise. Private equity is dominating the restoration space. The buyer of Don and Lan Chi's business was engaged in engineering, HVAC and electrical; diversification into IAQ consulting was a new profit center. For Don sale of the business was a retirement plan not a sales plan. After the sale, Don and Lan Chi stayed with the business for 17 months. In addition to mechanical contractors, IAQ consultants operating in other cities who wish to expand into your market would be a potential suitor.

### ***If you were writing a chapter for the AIHA Green Book; what emerging risk or field variable do you feel is being overlooked or most dangerously being unaddressed?***

The ACGIH Red Book, the second edition of Bioaerosols: Assessment and Control has been expanded to address contemporary bioaerosols, including coronavirus, H1N1, Legionella, recombinant and synthetic nucleic acids, prions, and agents of bioterrorism, notably SARS-CoV-2. New chapters cover bioterrorism agents and respiratory protection. Existing chapters are updated and expanded.

### ***Microscopy***

***As building materials become more engineered and complex, do you see standard direct examination microscopy keeping pace, or are we rapidly approaching a point where PCR and genomic sequencing must become the baseline for forensic evaluation?***

We live in Ottawa Canada's capital. Everything new comes to Ottawa. We are already there; gene sequencing and PCR are being utilized.

## RoundUp

- Practitioners, researchers and academics need to communicate.
- Don has been attending conferences for 50 years.
- When you attend conferences in your line of work everyone is doing what you're doing, Don has learned much by also attending conferences outside of his line of work.
- Don talks a lot and listens a lot.
- Don shared his plans to retire by the end of the year, continue reading and contributing to the field through writing and research, and travel with his wife.
- Future is less carbon and better IAQ.
- Ai may be useful getting people onto the same page.

## *Z-Man signing off*

### *Trivia:*

*Tomorrow June 6<sup>th</sup> is the 82<sup>nd</sup> anniversary of the D-Day invasion of Normandy.*

*What was the name given to the deception plan to keep the Germans guessing as to when and where the invasion would take place?*

### *Answer:*

*Operation Bodyguard*