

INDOOR AIR 2011

The 12th International Conference  
on Indoor Air Quality and Climate

June 5-10 • austin, texas

## The Professional Practice of IEQ Consulting

What does it mean?

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## The Professional Practice of IEQ Consulting

From the April 2005 ASHRAE Satellite Seminar  
"The Multi-Disciplinary Nature of 'Mold' Investigations"

### The Explosion of Mold Certifications

<b>CMI</b>	Certified Mold Inspector	<b>CMS</b>	Certified Mold Specialist
<b>CRH</b>	Certified Residential Hygienist	<b>CES</b>	Certified Environmental Specialist
<b>CMRS</b>	Certified Microbial Remediation Supervisor	<b>CIAQC</b>	Certified Indoor Air Quality Consultant
<b>CTME</b>	Certified Toxic Mold Exterminator	<b>CEH</b>	Certified Environmental Hygienist
<b>CTMI</b>	Certified Toxic Mold Investigator	<b>CRS</b>	Certified Remediation Specialist
<b>CMR</b>	Certified Mold Remediator	<b>CMI</b>	Certified Microbial Investigator
<b>CMS</b>	Certified Mold Specialist	<b>CMC</b>	Certified Mold Contractor
<b>CMC</b>	Certified Mold Contractor	<b>CMA</b>	Certified Mold Assessor
<b>CRMI</b>	Certified Residential Mold Inspector	<b>CPMS</b>	Certified Property Mold Specialist
<b>CMI</b>	Certified Microbial Inspector	<b>CMS</b>	Certified Mold Specialist
<b>CCH</b>	Certified Commercial Hygienist	<b>CMC</b>	Certified Microbial Consultant
<b>CEI</b>	Certified Environmental Inspector	<b>CIE</b>	Certified Indoor Environmentalist

## The Professional Practice of IEQ Consulting

**The current situation...**



- ◆ **"It's the economy, stupid."**
  - An inspector yesterday, a Certified Mold Inspector today
  - The Inspector–Investigator model has never been functional
- ◆ **"We are becoming a country that believes the rich have earned their money but the well-educated have not earned their intellectual superiority."** (Stein)
- ◆ **"We have elevated common sense above learned reason."**
- ◆ **"...as technology removes barriers to entry, the nonacademic elite has come to believe that because anyone can do anything, we are all equally skilled at everything."** [Wikipedia]


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Stein, J. "Bring on the Elites", *TIME*, August 23, 2010

## The Professional Practice of IEQ Consulting

Although...

**We'll all agree that an Ivy-League college education is no guarantee**



Consider this...

**Are you qualified to assume responsibility for occupant health?**

And remember...

**"Pigs get fat, but hogs get slaughtered"** (Bowdoin)

**Professional-level consulting cannot be described by a cookbook of 'standards' or SOPs.**

- These have always defined technician-level assignments

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Bowdoin, M. "Wisdom: Pigs Get Fat, But Hogs Get Slaughtered", *Indoor Environment Connections*, Vol 5, No 5 (March 2004)

## The Professional Practice of IEQ Consulting

### ◆ This is not simple work

- Many 'consultants' are over-reaching

### ◆ We're dealing with occupant health

- Underscores benefits of an OH&S background

1. Requires hard work, *common sense*, empathy
2. A foundation in the fundamental *physical and biological sciences* is necessary ("learned reason")
  - "Descriptive" courses could be sufficient
  - Must be able to apply some of the math, *including statistics*
3. A *progression of experience* under sage tutelage
4. Not Continuing, but *Continuous Education*



## The Professional Practice of IEQ Consulting



"Life is messy at the frontiers of knowledge."  
A large jigsaw puzzle without a picture of the assembled image.

"Patient, sustained efforts are needed." (Nazaroff)

Diligent, *Continuous Education* results in a series of  
"Aha!" moments

- Builds upon what you learned last month.
- Process appears to be unique to each of us.



This practice/habit seems to differentiate those who have learned enough to **pass an exam** from those who possess the necessary technical understanding to perform as **true professional consultants**

Nazaroff, W.W., (Editorial) "Particle Puzzle Pieces", *Indoor Air*, Vol 20, No 5, October 2010

## The Professional Practice of IEQ Consulting

The field of IEQ Consulting **continuously** evolves

- **New discoveries** that inform our understanding of occupant responses to the built environment **are published monthly**

Credentialing programs are 'backward looking'

- Based on a superficial understanding of references that are **outdated as soon as they are published**
- Training for these exams revolves around the few references **established by the credentialing entity**
  - Look up chapter and verse on-line
  - Passing rate for ABIH exam historically <40%
    - Others are unpublished

## The Professional Practice of IEQ Consulting

### Continuous Education

**Indoor Air, the International Journal of Indoor Air Quality and Climate**

Impact factor: 0.741 in 1996; 1.219 in 1999; 2.89 in 2009  
(JOEH 1.125; ASHRAE HVAC&R Research 1.22; Environ Health Perspectives 6.91)

"...for reporting original research results in **the broad area defined by the indoor environment of non-industrial buildings.**"

- *Industrial* hygienists, are you listening?



CELEBRATING 20 YEARS!

## The Professional Practice of IEQ Consulting

### Continuous Education

*Indoor Air, the International Journal of Indoor Air Quality and Climate*

“An international journal with **multidisciplinary content**, *Indoor Air* publishes papers reflecting **the broad categories of interest in this field**:

- **health effects**
- **thermal comfort**
- **monitoring and modeling**
- **source characterization**
- **ventilation and other environmental control techniques.”**



## The Professional Practice of IEQ Consulting

### Continuous Education

*Indoor Air, the International Journal of Indoor Air Quality and Climate*

- ◆ “The research results present the basic information to allow **designers, building owners, and operators** to provide a **healthy and comfortable environment** for building occupants, as well as **giving medical practitioners information** on how to deal with illnesses related to the indoor environment.”
  - “...information on how to deal with illnesses...?”
  - **What about Practitioners?**
    - **Is this what you do?**

