SOLUTIONS - Indoor Environmental Consulting
Presents

Indiana IAQ

May / June 2012

About Indiana IAQ:

A new kind of newsletter that addresses the concerns of everyone interested in Indoor Air Quality (IAQ) in Indiana. From the many questions and concerns received this newsletter and the ones to follow are developed from specific concerns. Information is collected and applied this way to the articles published.

Who can write in? *Anyone*! Contractors, mitigation technicians, restoration and remediation technicians, real estate professionals, banks, doctors, lawyers, insurance professionals, investors, *anyone* with an interest in IAQ.

To submit an idea for an article, write to: IndianaIAQ@solutionsiec.com.

Inside this issue:

Inside this Issue of Indiana IAQ:

Search the word *mold* in Google and it will bring up over 124,000,000 hits; search the phrase *health impacts of mold* and over 400,000 hits will come up; further that with searches for *indoor air quality health risks* and nearly 3,000,000 hits will turn up. When one looks at each of these hits individually, one finds that there is no real consensus as to what is and is not an acceptable health risk. While one website might state all molds are toxic, another may say you can lick mold off the wall. (Believe it or not there is a video out there by a guy who licks mold off of a wall. Yuk!) Confused who to trust and what to believe? Comfortable making your own decisions on what is and is not *acceptable risk* for you, your family or workplace?

In this the so-called Information Age, one may be led to assume that we, the occupants of this age, are better off because we have more access to more information quicker than ever before, but no one said this was the age of reliable and trustworthy information. Did they?

With risk, and those things one reads on risk, one has to keep in mind the aspects of *risk perception*. Perhaps one of the biggest reasons so much information on the internet seems so confusing is because the source of the author's perception of risk does not agree with another author's perception of risk (so on and so forth into the millions of hits).

And, so it is. Those who have not made their minds up about what is or is not acceptable risk for them are left with more questions than answers, trusting others less, and sensing the need for a gamble in order to try-out a process or product (or nothing at all) in order to secure their safety and health.

In this edition of Indiana IAQ, we will touch on the principles of *Risk* and *Risk Perception* and begin a discussion on ways you may begin to evaluate what maybe acceptable and non-acceptable risk for you and those around you. Perhaps, as we begin this discussion, we will generate questions that will lead to follow-up articles of expanded discussions? That's up to you. Write in and let me know, and we'll go from there.

May God bless.

~ Jason Yost

About Jason:

Jason has been in the industrial hygiene, indoor environmental quality, and cleaning and restoration industries for twenty years. He has a background in Occupational Safety & Health and Industrial Hygiene Management from Columbia Southern University, and has been peer-reviewed and certified in indoor environmental remediation supervision & consultation, microbial remediation supervision, and structural drying supervision from the American Council for Accredited Certification. For more information write to jasony@solutionsiec.com.

Are Toxic Chemicals in Your Gardening Tools?

Testing shows that many common gardening tools—including hoses, gloves, kneeling pads, shovels, and trowels—are contaminated with harmful chemicals, claims the nonprofit environmental group Ecology Center. CNN reports that the organization analyzed 200 popular gardening products and found that two-thirds of them contained significant levels of phthalates, bisphenol A (BPA), and lead.

The Ecology Center focused their testing on water hoses. They bought hoses, filled them with water, and laid them outside in the sun for 72 hours. Afterwards they tested the water and found levels of phthalate DEHP four times higher than federal drinking water standards. BPA levels were 20 times higher than safe drinking levels, and lead levels were 18 times higher than federal standards.

The group recommends buying vinyl-free tools and lead-free hoses that do not contain the chemical polyvinylchloride (PVC).

Phthalates are chemicals used to soften plastics and are considered endocrine disruptors, meaning they interfere with hormone function in the body. Some studies have also shown that phthalates cause birth defects and developmental issues.

BPA is a highly controversial chemical and has been banned in China, Canada, Malaysia, and all of the European Union. In the United States, its use has been widespread in consumer products since the 1960s. Past research indicates that BPA can mimic the hormone estrogen, and thus it is considered to be an endocrine disruptor. Some scientists claim that BPA is not a health threat, but studies have linked the chemical to a greater risk of cancer, diabetes, obesity, and behavioral problems in young children.

While lead is dangerous to everyone, children are at the greatest risk for lead poisoning. They are still developing and their small bodies would contain higher concentrations than adults. Possible complications resulting from lead poisoning are learning disabilities, mental retardation, behavioral problems, lowered intelligence, stunted growth, and hearing impairment.

"EMSL Analytical uses validated testing methodologies to analyze consumer products for phthalates, BPA, lead, and other toxic substances," states Michael Chapman, Chemistry Laboratory Manager. "If needed, we also offer customized testing services for our clients."

For more information on EMSL's testing services, please visit www.EMSL.com.

Risk & Reward

When you read the article above (Are Toxic Chemicals in Your Gardening Tools?) did you get a clear perspective of the author's perception of risk? Do you trust the author? Why? Why not?

Risk perception is something influenced by many factors, including but not necessarily limited to things like personalities, and behavioral, attitudinal and situational biases. Because every individual is unique and comes to observe a risk from that unique point of view, each person may not perceive the risk the same. This is important to consider; because, perception is a key component to human behavior. The means by which one evaluates external stimuli determines how s/he will behave in response to those things.

While one person may evaluate a risk through the lens of their *faith* another may evaluate the same risk through the lens of *finances*; while one person can *afford* to measure risk without finances influencing their decision, someone else may not have that luxury; where one person is *aware* of the result of their relationship to an external stimuli, another person may not; and/or where one

person may be seeking information on a risk from a *personal level*, another may be looking at it from an *organizational or legislative level.*

These are important things to consider before rushing into trust or decisions internally and externally. Choosing incorrectly may cause unwanted and unaffordable stress, financial burdens, or other ill-outcomes.

Consider, for a moment, the figure on the next page. This is a figure used in risk management to illustrate the principle of something called: As Low As Reasonably Practicable (ALARP). By itself, it tells us nothing, but taken as a principle for application, it can be a useful aid in our investigations. Let's look at this more closely.

Most people would agree with the figure that there are three general levels of risk:

1. Risks that are so high that they are clearly intolerable to every member of society.
2. Risks that are so low that they can be regarded as negligible for every member of society; and,
3. Risks that fall between these two levels, and which may require thought, discussion and mitigation action in order to determine whether that risk is acceptable or not.

Decisions about which risks fall into the first two categories do not occupy a lot of our time. If something, like jumping off the Trump Tower, is considered, one generally doesn't have to spend too much time on it to say, "That's dangerous to everyone's life, so don't do it."

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Risk & Reward

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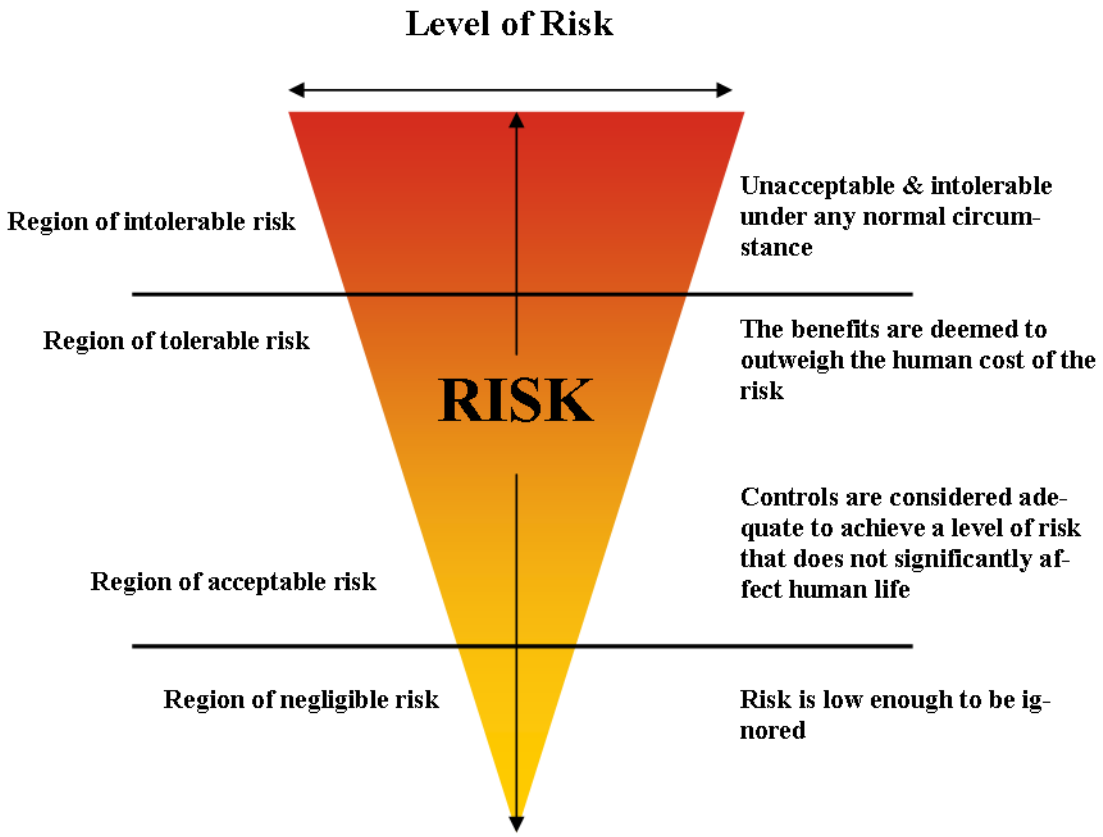

Where things become a little more complicated is when (1) there is an uncertainty associated with the definition of the problem, (2) there are difficulties associated with assessing the facts, (3) there are difficulties associated with assessing risk values, (4) there are uncertainties about the impact of human factors, and (5) there are difficulties associated with assessing the quality of the decision. Dealing with these issues become even more complicated when necessity requires a quick response without adequate preparation, as when natural disasters strike or after an unforeseen property damage. Here I am reminded of the words of Benjamin Franklin, who said, "Necessity never made a good bargain." He is right.

One of the best ways to deal with risk, whether in your personal or professional lives, is to develop a risk management system *and* team. Risk management systems have been defined as "The systematic application of management policies, procedures and practices to tasks of identifying, analyzing, evaluating, treating and monitoring risk" (Standards Australia/ Standards New Zealand) and "The process whereby decisions are made to accept a known or assess risk and/or the implementation of actions to reduce the consequences or probability of occurrence" (Royal Society). In business and legislation, this is usually done in writing; however, in our personal lives, many of us do not have the time or qualify to tasks of identifying, analyzing, evaluating, or monitoring all known, suspect or potential risks. For example, after a flood how many people have the equipment to effectively remove the flood waters and subsequent contamination; how many understand all of the contaminants associated with floods; and, how many know an efficient process of response that will protect themselves, their building, and their pocket-books?

Taking a pro-active approach to risk management, instead of worrying about responding to unplanned risks, is a huge step toward reducing risks (no life is without some risks) and the stress and burdens that come with the reactive approach.

As I mentioned earlier, a part of your risk management plan should include a team. Interview professionals, before you need them, for a position in your team. Get to know their experience, point of view, qualifications, references, stability, willingness to participate, and other important factors to determine whether or not they will fit well into your team; then, use your team to prepare you for incidences that occur from uncontrollable risks. (continued on page 4)

SOLUTIONS
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"Don't let problems with poor indoor air quality take control of your life. Empower yourself with SOLUTONS—Indoor Environmental Consulting—today!"

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SOLUTIONS IEC is a truly experienced business that, with over twenty years of mitigation, restoration, remediation and hygiene practices, can assist you in determining the Category and Condition of the damaged structure; develop a protocol that is real and specific to the structure; and can provide expertise beyond just an inspector's role. Our staff of professionals have been recognized in both indoor environmental consulting (Council-certified Indoor Environmental Consultants) and indoor environmental remediation supervision (Council-certified Microbial, Moisture, & Environmental Remediation Supervisors) - holding four of the most prestigious awards in the industry today! Don't let poor IAQ take control of your life. Empower yourself with SOLUTIONS—Indoor Environmental Consulting—toady!

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Risk & Reward

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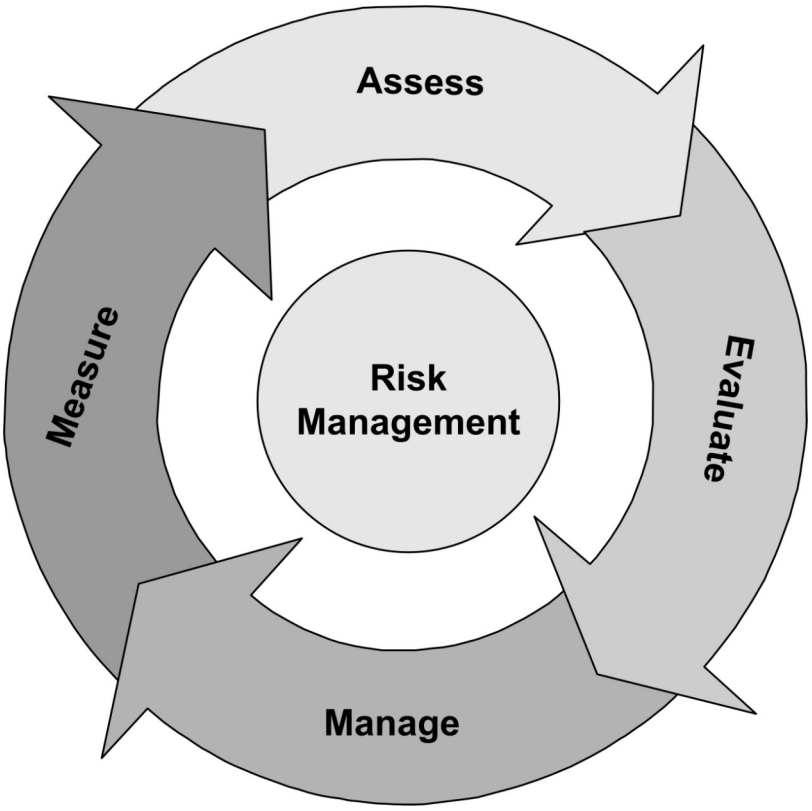

Many insurance and restoration companies do this team-building through programs like Preferred Vendor Programs (PVP) and Preferred Service Provider (PSP) programs, but many do so in a system of reactive mitigation and general restoration systems, not proactive planning and risk mitigation. Solutions IEC offers consultation services to help businesses and individuals alike prepare a system of risk management and accident preparedness. For some this may include helping develop a maintenance plan, others training programs. Whatever your need, give us a call and let's talk about ways we can help you identify the non-acceptable risks in your life and develop a risk management plan to mitigate those risks from becoming accidents, as well as develop an accident safety and health response plan for you and everyone else in your family or organization.

Ask us about the Lord, Jesus!