

Indiana IAQ

July/August 2010 Issue

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.

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Announcement of Important Changes

There are several important changes taking place at SOLUTIONS Indoor Environmental Consulting (IEC) over the course of the next couple of months. Here are a few of them:

1. *Indiana IAQ will become a bi-monthly release.* This is part due to the overwhelming response for inspection and assessment services coming into our office. Rather than compromise the quality of this newsletter, I have decided to make it a bi-monthly release. I hope that this does not hinder, in any way, your involvement in the newsletter. In the past we have been blessed to have received a lot of questions and comments from you, our readers. Please feel free to write in any time: IndianaIAQ@solutionsiec.com. Thank you!
2. *Our website is shrinking.* As this newsletter has taken off, more and more of you are writing in saying you would like to see a smaller website and a continued resource in the Indiana IAQ newsletter. We agree. Over the course of the next couple of months we will be working to reduce the website size in favor of the Indiana IAQ directory of issues. This should make navigating our website easier, allowing you and your friends to find the things that you are looking for easier. Please keep the suggestions coming: IndianaIAQ@solutionsiec.com!
3. *Jason's email address is changing.* For those of you that have not heard, I switched to the Droid phone several months ago. I have been so impressed with its technology and gmail's user-friendly service that I am switching to my gmail account permanently: solutionsiec@gmail.com. This will allow me to be more available, as I will be able to receive your emails quicker, via the Droid, and respond sooner. To help the transition I will not delete the live.com email address, but will continue to monitor and forward requests for changes until they have successfully been completed.

For everyone that has helped make SOLUTIONS IEC a success, we thank you from the bottom of our hearts and pray God blesses you, your families and businesses abundantly.

- Jason Yost, owner of SOLUTIONS IEC.



Neither Rain nor Sleet nor Snow Can Stop the U.S. Mail, but Mold Did!

Denver, CO, July 14th, 2010

This week it was reported that the U.S. Postal Service has stopped delivering mail to an apartment complex in Colorado Springs, Colorado because its mail room is contaminated with mold. Apartment residents are required to visit the post office to pick up their mail because the postal service believes it is a health hazard for its employees to fill the 100 or so mailboxes in the complex's mailroom.

According to media reports the complex tried to paint over the mold with no success. Of course mold won't typically grow in indoor environments unless there is a moisture problem and without that problem being fixed the mold will simply grow back. Also the mold cannot just be covered over,

but rather should be properly remediated by professionals who understand how to fix mold problems and not cross contaminate other parts of the building.

Mold in indoor environments can cause a host of medical conditions. These range from allergies to infections. Fungal infections are typically caused by inhaling airborne fungal spores that make their way to a person's respiratory tract. People with underdeveloped or weakened immune systems are generally the most susceptible to infection. Allergies can also be caused by exposures to mold, not to mention it can be a trigger for asthma. Allergic symptoms may include watery eyes, congestion, itchy nose, sneezing, coughing and rashes.

"Unfortunately the example of the complex trying to paint over a mold problem happens all the time," reported Joe Frasca, Sen-

ior Vice President for EMSL Analytical. *"The source of the problem has to be fixed and then proper remediation can take place. Air sampling can identify the problem and also show that an area has been properly fixed when samples are taken at the end of the project,"* Frasca continued.

Author: EMSL Analytical, Inc. is a nationally recognized and locally focused provider of quality environmental and materials testing services and products to professionals and the general public. The company has an extensive list of accreditations from leading organizations as well as state and federal regulation bodies. For more information on EMSL Analytical, Inc. visit their website at www.emsl.com or call them at (800) 220-3675 or email info@EMSL.com.

EMSL Scientist's Work on Gmononiopsis Fungi Gets Noticed

Cinnaminson, NJ, July 1st, 2010

Chestnut blight fungus was introduced to the United States from Asia sometime in the first decade of the 1900s. Within 30 to 40 years most of America's mature chestnut trees had been wiped out by the disease caused by the fungus.

There is a group of fungi that includes the species that caused the chestnut blight. *Gnomoniopsis* are leaf and stem inhabiting pyrenomycetes that infect plants. The class of fungi causes extensive crop loss and the research by Dr. Sogonov and several other researchers recently shed new light on the identification of these important fungi.

The research was accepted earlier this year by the peer reviewed journal, *Mycologia*. According to the interpretive summary it, *"...describes and illustrates all fungal species in a genus related to the chestnut blight fungus. Many of these species occur on hardwood trees and herbaceous plants in North America, although most of them do not cause serious diseases. This research provides descriptions and illustrations of these fungi*

along with a key for identification. In addition, relationships between these species have been determined based on DNA sequences."

Dr. Sogonov began his passion for understanding fungi in his native Russia. He earned his doctorate degree at Moscow State University before coming to the United States. He has authored numerous publications and has taught or mentored at both Moscow State University and Rutgers University. His research has been presented at conferences around the globe from Russia to Australia.

EMSL, one of the nation's largest environmental microbiology testing laboratories, has put Dr. Sogonov's years of experience working along with a team of other Ph.D. microbiologists to work in their renowned Mycology Department. *"Dr. Sogonov's scientific research has been instrumental in allowing other scientists to better understand many types of fungi,"* reported Joe Frasca, Senior Vice President for EMSL Analytical, Inc. *"The benefit to EMSL's clients is tremendous and he has once again helped take research from academe*

into the world of commercial environmental microbiology."

For more information about fungal research into *Gnomoniopsis* or other environmental testing please contact EMSL at (800) 220-3675, visit www.EMSL.com or email info@EMSL.com.



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Can My Furniture Really Cause an IAQ Problem?

Absolutely. There are a number of things that can happen to the Indoor Air Quality (IAQ) as a result of your furniture—and for various reasons. Let's look at one of the big ones:

VOCs

VOCs are organic chemical compounds that have high enough vapor pressures under normal conditions to significantly vaporize and enter the atmosphere. Considered a factor in IAQ issues such as sick building syndrome, VOCs "are generated by photocopiers, carpets, and furnishing as they are used or when components oxidize; compounds include acetone, benzene, benzaldehyde, benzyl acetate, toluene, and xylene. One irritant, formaldehyde, is present in hundreds of office components, including wood and laminated furniture, shelving, and wall coverings. It also evaporates from paints, varnishes, and chemicals used for sealing and finishing walls." (*Sick Building Syndrome - New Treatments, May 2, 2007*) by the library of the National Medical Society. Taken from: www.medical-library.org/journals3a/sick_building_syndrome.htm.)

Microbes also produce VOCs as a by-product of their metabolism. VOCs produced by microbes are generally termed "microbial Volatile Organic Compounds" (mVOC). mVOCs have an odor that is often described as "musty" or "earthy" and can be the first sign of mold growth in the indoor environment.

In their report, *"The Inside Story: A Brief Guide to Indoor Air Quality"* (www.epa.gov/iaq/pdfs/the_inside_story.pdf), the Environmental Protection Agency (EPA) makes mention of some of the sources of VOCs to "include combustion sources such as oil, gas, kerosene, coal, wood, and tobacco products; building materials and furnishings as diverse as deteriorated, asbestos-containing insulation, wet or damp carpet, and cabinetry or furniture made of certain pressed wood products; products for household cleaning and maintenance, personal care, or hobbies; central heating and cooling systems and humidification devices; and outdoor sources such as radon, pesticides, and outdoor air pollution."

In fact, the EPA stated in their *"Indoor Air Pollution: An Introduction for Health Professionals"* (www.epa.gov/iaq/pubs/hpguide.html) that "Concentrations of many VOCs are consistently higher indoors than outdoors. A study by the EPA, covering six communities in various parts of the United States, found indoor levels up to ten times higher than those outdoors -- even in locations with significant outdoor air pollution sources, such as petrochemical plants." During certain activities indoor levels of VOCs may reach 1,000 times that of the outside air.

"Why is that?" Because, as you can see by our examples, the sources of VOCs are common and a part of so many building components, cleaning agents, and our lives that when they get together they concentrate into a mix that can become a pollution issue in our indoor environments. Outside the air is mixed and ventilated constantly. Within our homes and offices this is not always the case. In fact, poor ventilation can

be one of the biggest contributors to poor IEQ.

"What kind of health effects can VOCs have on people?" Some of the key symptoms associated with VOCs are eye, nose and throat irritation and discomfort, nausea, respiratory distress, allergic skin reactions, headache, dizziness, inability to concentrate, and fatigue. Some examples of specific VOCs and their health effects have been included in the EPA's *"Indoor Air Pollution: An Introduction for Health Professionals"* such as: "Formaldehyde has been classified as a probable human carcinogen by the EPA" and "Environmental tobacco smoke is a dynamic, complex mixture of more than 4,000 chemicals found in both vapor and particle phases. Many of these chemicals are known toxic or carcinogenic agents." The EPA additionally added information on this topic in their *"The Inside Story: A Brief Guide to Indoor Air Quality"*. There are many other resources out there in regards to specific VOCs and their health effects, but your best resource when questioning your symptoms and their cause will remain your personal doctor.

Specific VOCs are not often proven to cause Sick Building Syndrome (SBS) complaints often because there are too large a number of chemicals found indoors; thus, making the establishment of causal relationships between health and certain VOCs a difficult process. So, when you and your doctor suspect there may be an issue in your home or office with a symptom you have and a VOC, contact us and let us know how we can help. Perhaps it isn't easily identified and providing some specific information to your doctor on a specific VOC will help remedy your symptoms. Whatever your situation never get discouraged.

With that in mind let's discuss some of the things you can do to limit your exposure to VOCs in your home or office.

- Increase ventilation.
- Reduce use of household chemicals.
- Review the Material Safety Data Sheet (MSDS) for all products you and your contractor uses, looking for things that you know you are sensitive to. (Remember: you always have a right to a copy of the MSDS of any product your contractor is using.)
- Read the label instructions on your cleaning products and use strictly as listed.
- Use cleaning products and building components with low VOCs like baking soda, vinegar, and solvent-free paint.
- Store all cleaning products where there is no normal occupant traffic.
- Buy only those cleaning products you need so as to reduce your stored products.

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

(877) 624-7185

We're on the web!
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SOLUTIONS IEC is a truly experienced business that, with over seventeen 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 microbial remediation supervision (Council-certified Microbial Remediation Supervisors) - two 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—today!

Serving the Indiana and Illinois states!



Can My Furniture Really Cause an IAQ Problem?

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- Safely and legally discard chemical products.
- Make sure the chimney and stove pipes are in good condition.
- Make sure that all localized exhaust ventilations systems (like those in the bathroom) are operating properly and ducted outside the structure.
- Make sure that all ventilation systems are properly filtered, cleaned and maintained.
- Don't cover supply and return registers (where air is forced into and out of the room from your air-conditioner and heating system) with furniture or other contents.

Increasing ventilation can dilute the air as it removes some of the pollutants from the indoor environment to the outdoors. This can be done by opening windows and doors in some cases where the

outdoor air is clean enough to be utilized without some type of purification process. Another way to accomplish this is making sure the Heating, Ventilation, and Air-Conditioning (HVAC) system is functioning properly. A properly functioning HVAC system will exhaust a percentage of the indoor air to the outdoors while taking in an equal percentage of outdoor air. This outdoor air should then be cleaned (with the furnace filter) and processed (by the heating and cooling system) to provide a diluted air mixture of outdoor air and recycled indoor air. This air should be supplied to each area being processed in a way that encourages an air flow that will (itself) aid in the ventilation process.

"How do I know I'm buying a product that has low VOCs?" There are green labels that can help you find products that are eco-friendly. These labels sometimes identify the product as one that does not off-gas chemicals that would significantly affect health and the IAQ. For more information on green

labels that focus on health and IAQ you may want to look at these websites:

- GREENGUARD Environmental Institute: www.greenguard.org
- The Carpet and Rug Institute's Green Label Plus: www.carpet-rug.org
- Indoor Advantage Gold and Floor-score by Scientific Certification Systems: www.scs-certified.com

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