



# Environmental Health & Safety News

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## Special points of interest:

- Upcoming Asbestos awareness Seminar in Avon CO –call for more information
- Joe Nickels to take CIH exam this Spring
- Higgins staff to attend IAQA Conference in Fort Worth Texas
- Annual Vail ski trip in March

## Inside this issue:

**Sewage Contamination from Water Intrusion Events** 2

**Employee Profile** 2

**Note From Chris** 3

**Phase I's – NOT a "one-size fits all" approach** 3



## Practical Approach to Mold and Asbestos Assessments

**By: Joe Nickels**

Water intrusion events occur in a variety of industrial, commercial and residential settings. Examples of water intrusion events that are commonly reported by building owners and homeowners include, roof leaks that may cause hidden mold growth above ceiling tiles, etc.; Hidden and exposed broken or damaged water piping and pipe condensation; and damaged or improperly installed water lines to appliances including clothes washers, refrigerators, and dishwashers.

Asbestos containing materials (ACM) are most often overlooked during water damage assessments that may also involve visible suspect mold growth. These materials may include drywall and associated joint compound, linoleum flooring, resilient floor tiles (e.g., vinyl asbestos, asphalt, rubber), carpet mastic, suspended ceiling tiles, popcorn decorative ceiling

and wall texture, pipe insulation, vermiculite for floor joist and wall insulation, and heating, ventilation and air conditioning (HVAC) duct insulation. In most cases, these materials are often wet from water intrusion or leak events and are usually discovered during mold assessments.

### Regulatory Aspect

There are currently no regulations or standards established for safe concentrations of mold (fungal) spore concentrations within indoor air. However, ACM is regulated both at the Federal and State/local level. Many of the State/local regulations are more stringent than the mandatory U.S. Environmental Protection Agency limits for ACM management and disposal. The industrial hygienist or safety professional should check the State and local requirements before proceeding further with source identification and remediation.



### Remediation Activities

The following is a summary of the deciding factors and approaches to managing mold and asbestos for reported water intrusion event or water damage. **Continued on page 3**

## Vail Valley Asbestos Regulations Seminar

Higgins and Associates along with the Indoor Air Quality Association will be hosting a series of free seminars on the Colorado asbestos regulations. Currently in the mountain areas of Colorado there is a growing problem with improper removal of building material that contain asbestos. An alarming number of businesses and homeowners have been fined by the State for lack of compliance to the existing asbestos regulations. This problem is compounded during the winter due to freezing pipes and water damage to building materials.

Jeff Adams from the Colorado Department of Public Health and Environment (CDPHE) will speak on the State regulations. seminars in the following locations throughout the State: Avon (Vail valley), Aspen (Roaring Fork Valley), Grand Junction, Durango and Telluride. **The first of these seminars will take place on February 13 at 10:00 am in the Avon Public Library. For more information call Patrick at (303) 708-9846**

## SEWAGE CONTAMINATION FROM WATER INTRUSION EVENTS



### Category 3 water loss

“Extensive  
damages to  
building materials  
can occur if  
appropriate action  
is not taken in a  
timely manner”

#### By: Joe Nickels

A serious threat to human health exists when a building is contaminated with sewage. Gastrointestinal illnesses and other adverse health effects can result from the ingestion or inhalation of infected materials. Sewage or “Black Water” can occur from septic lines backing up or flooding of a building that involves sewage or a heavy load of organic matter from a flooding river. Extensive damages to building materials can occur if appropriate action is not taken in a timely manner. A quick response will prevent extensive permeation and contamination of absorbent materials, such as wood, gypsum drywall, paper and concrete. Penetration with water and organic matter (sewage, black water) potentially leads to growth of disease-causing microorganisms or pathogens.

Water intrusion events are best categorized by the Institute of Inspection, Cleaning and Restoration Certification (IICRC) [ANSI Standard S500], according to potential contamination and required restoration activities. IICRC S500,

“*Standard and Reference Guide for Professional Water Damage Restoration*”, defines three categories of water: Category 1-sanitary water source (e.g., broken water supply lines, tub or sink overflows, broken toilet tanks); Category 2-organic/inorganic source (e.g., dishwashers, et.c; Category 3-gross, pathogenic, toxigenic e.g., sewage, toilet backflows, seawater flooding, rivers/streams rising water and Cont. on page 3 on weather-related events. A black water event is normally a Category 3 water intrusion event. The categories of water intrusion events are necessary for establishing the scope of work for cleanup/restoration activities. flooding, contaminated water from hurricanes and other weather-related events). Sewage or black water event is normally a Category 3 water intrusion event. The categories of water intrusion events are necessary for establishing the proper scope of work for cleanup/restoration activities.

#### Cleaning Process

When a sewage incident occurs, an immediate response is critical. The property

owner/homeowner can minimize health and safety impacts initially by carefully taking the following actions: Ensure that no electricity is being conducted by water that may have risen over the electrical outlets; Prop up wet upholstery cushions to promote drying; Carefully place aluminum foil or china saucers between furniture legs and wet carpeting; Remove valuables to higher, drier locations; Remove as much excess materials that may obstruct restoration services; Soak up water carefully with disposable paper towels; Pick up colored magazines and put them away; Do not turn on electrical appliances; Do not use your vacuum to remove water; Do not turn on the ceiling light fixtures should the area be wet.

**Joe Nickels**, CHMM, MPH, MS is a senior industrial hygienist with over 25 years of experience

## Employee Profile: Mike Semonick

Mike has been with Higgins and Associates for six years and heads our Mold and Asbestos Division. Mike is one of the most highly respected Industrial Hygienists in Colorado. He holds certifications in mold inspection, asbestos building inspection, air monitoring, project management and design. As well a Master’s degree in Industrial Safety.

When not working with one of our contracting partners Mike is an avid skier and outdoor enthusiast. In addition he has been an avid Harley Davison owner and rider for over twenty years.

“I love working here at Higgins. Our company is like a big family”.—Mike



## Practical Approach to Mold and Asbestos Assessments cont.

Cont. from page 1

If moldy materials require removal and replacement, the same materials should be tested for asbestos content. If the material test results indicate ACM, then the remediation activities are regulated.

Typically, mold remediation activities are managed through best management practices that mirror the regulated asbestos remediation activities. Mold remediation requires proper isolation of materials and con-

tainment structure similar to asbestos remediation regulatory protocols.

The entire enclosure area should be High Efficiency Particulate Air (HEPA) vacuumed and wet wiped prior to conducting a post remediation air sampling.

Remediation activities should be coordinated with State certified consultants, asbestos building inspectors, and mold/asbestos remediation contractors. Containment decisions are made based on

the size of the mold growth area and ACM, and the potential for building contamination without containment and occupant exposure.

**Joe Nickels**, CHMM, MPH, MS is a senior industrial hygienist with over 25 years of experience.



**Mold damage caused by water intrusion**

## Phase I's – NOT a “one-size fits all” approach

**By: Gary VanDerSlice, P.G.**

**Question** – Should all Phase I Environmental Site Assessments involve the same effort and cost?

**Answer** – No. Not all properties are the same, and not all environmental risks are the same. Therefore, not all Phase I's should be the same.

The appropriate level of in-

quiry for an industrial property developed 100 years ago is more rigorous than that for a raw ground site in an undeveloped area. Therefore, the level of effort (and cost) for a Phase I is typically higher for industrial properties and lower for undeveloped areas.

Phase I effort can identify environmental concerns that a less rigorous may not discover. Environmental impacts can cost many thousands, or millions, of

dollars to mitigate. Therefore, it is usually a wise choice to invest in a more rigorous Phase I effort when the risk of environmental impairment is greater. The cost of a Phase I can pay for itself by many orders of magnitude when the findings are used to negotiate the purchase price and responsibility for cleanup.

**“Not all Phase I's should be the same”**  
-Gary VanDerSlice

## Note from Chris

Higgins and Associates was founded in 1996 on the basic principal of providing high quality services and unsurpassed customer focus at a competitive price. This has been the driving force for our growth since the company's inception. We are excited to continue expansion in 2009 in the areas of infection control, mold and asbestos surveys, carbon black investigations, regulatory assistance, safety program development, conducting audits and inspections. The outlook for 2009 is also strong for our assessment and remediation group to retail petroleum, upstream petroleum, oil and gas, communication and industrial clients.

2009 is a year of change for our country. Higgins is positioned to move with the changes and will continue to have our focus on the quality of our services and unsurpassed customer service.

- **Chris Higgins**



**“In 2009 Higgins will continue to focus on quality & unsurpassed customer service”**  
- **Chris Higgins**



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- STORAGE TANK CLOSURE AND REMOVAL
- COMPLIANCE ASSESSMENTS
- LITIGATION SUPPORT AND REGULATORY NEGOTIATIONS
- ENVIRONMENTAL MANAGEMENT SYSTEMS DEVELOPMENT SUPPORT (ISO 14001)
- PHASE I & II DUE DILIGENCE ASSESSMENTS
- SPILL PREVENTION COUNTERMEASURE AND CONTROL (SPCC)
- REMEDIATION SERVICES
- SOURCE WATER PROTECTION
- GEOGRAPHIC INFORMATION SYSTEMS
- STORM WATER POLLUTION PREVENTION PLAN
- RISK MITIGATION / MANAGEMENT CONSULTING
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- OSHA REGULATORY INSPECTION, NEGOTIATION, AND LITIGATION SUPPORT
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