

# Environmental News & Notes

February, 2006

## Who Knows This:

- Molds are part of the natural environment, outdoors molds play a part in nature breaking down dead organic matter.
- There are many types of mold and none of them will grow without food and water
- MOISTURE control is the key to MOLD control
- The use of chemical or biocide that kills mold is not recommended as routine practice



## MOLD - It's not just a fad anymore

Fungi become a problem in buildings wherein moisture levels and temperature allow for their growth and reproduction. Modern technology provide these conditions to occur commonly. This is partly because building materials have become more absorbent, therefore retaining more moisture. To keep building occupants comfortable and healthy in buildings, we must be aware of basic parameters such as temperature, relative humidity, carbon dioxide, carbon monoxide, particulate levels, air movement and cleanliness, but also of dryness or moisture content of the building and the ability to support fungal growth. Additional research and an increase in the ability to isolate, quantify, and identify species of molds have granted additional insight into the emerging importance of the relationship between mold in our environment and the symptoms that commonly result from mold exposure. The health effects that fungal exposures may cause in humans are usually the result of airborne or ingested fungi. The body exhibits three basic responses to contaminants: the allergic response, the disease response, and the toxic response. Humans experience allergic reactions to fungi, creating antibodies. When spores or hyphal fragments penetrate deeply into the lungs in sufficient quantities, or when they penetrate the skin, a disease results and the body responds accordingly. Finally, when humans come into contact with toxins, there is a potential for severe damage to occur. Some fungi create toxins under certain conditions and some of the toxins created are very damaging to humans when they are exposed to high enough doses of the toxins.



Mold Contaminated Drywall

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Currently standards do not exist that provide Permissible Exposure Limits, Threshold Limit Values, or other levels that indicate or imply safe or healthy conditions. However, in recent years, multiple organizations have provided guidelines regarding mold. Probably the most recognized guideline documents are the American Conference of Governmental Industrial Hygienists' (ACGIH) *Bioaerosols: Assessment and Control* (1999); the environmental Protection Agency's (EPA) *A Brief Guide to Mold, Moisture and Your Home* (2003) and *Mold Remediation in Schools and Commercial Buildings*; and the Institute of Inspection Cleaning and Restoration's (IICRC) *S520: Standard and Reference Guide for Professional Mold Remediation* (2003.) Mold contamination in buildings has become such a recognized problem that lawsuits are regularly being filed regarding the presence of mold in buildings, its effects on the occupants, and the measures required to properly clean and prevent future mold growth. As for the future of mold concerns ... it appears as though it is here to stay. [Article by Jenna Sendra]

## Seminar Series



healthAIR, inc. is introducing a new "complimentary" service for it's existing clients. healthAIR will be providing several seminars each year on various environmental topics. With the addition of our Waste Management Services and the lack of information available to most facility managers, we are opening our seminar series with a related topic: Managing Your Hazardous Waste and Potential Funding Sources. These seminars will be small discussion-group oriented programs used for learning and sharing information. Seminar will be schedule for no more than 4-hours and it can be used for continuing education credit (MSBO). This

first seminar is scheduled for Friday, February 3, 2006 and Friday, February 10, 2006 (space is limited to 10 per session). If you are interested in attending, please contact Scott Staber at [sps@health-air.com](mailto:sps@health-air.com) or (248) 426-0165 x22. See the back page of this newsletter for topics discussed in this seminar .....

## Waste Management Services



Mercury-containing switches and thermometers

*“It pays to find mercury before it finds you.”*

### Mercury—Is it Gone?

Some things just never go away. If you think you have successfully removed all mercury and/or mercury-containing devices from

your facilities....think again. We are continuing to pick up mercury from clients across the state AND unfortunately we are continuing to conduct mercury spill clean-up projects. Yes, there are less of them but when they do occur it is extremely expensive to remediate and the political damage is often overwhelming.

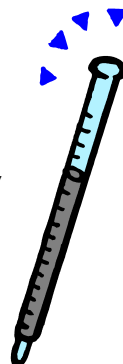
According to the revised school code (Act 451 of 1976) “...school districts shall ensure that after December 31, 2004 they do not purchase, store, or use an instrument that contains mercury, including, but not limited to, a thermometer, barometer, or sphygmomanometer, or manometer containing mercury.”

As a reference, here are typical sources of mercury above and beyond elemental mercury often found in science laboratories and medical rooms/clinics:

- Fluorescent Lamps
- Mercury Thermostats
- Mercury Vapor Lamps, Metal Halide Lamps, High-Pressure Vapor Sodium Lamps
- Mercury Gauges
- “Silent” Light Switches
- Mercury Float Control Switches (i.e., sump pumps)
- Flow Meters with Mercury Switches
- Other equipment with mercury switches: flames sensors, fire alarms and safety valves.

- Older fungicides and pesticides (prior to 1991)

Let costs be your driving factor in compliance with this rule. Disposing of mercury is inexpensive as long as the mercury remains within the device or storage container. On the other hand, if mercury is released as a spill, then clean-up costs are incurred and disposal (or rather mercury extraction) of mercury-contaminated waste is very expensive. Regulations require all mercury waste be sealed in 55-gallon drums (no matter how much waste you have) and one drum of recovery will cost you approximately \$2,000.00—not including clean-up costs and sampling costs. It pays to find your mercury before it finds you.



### Project Profile—Contaminated Sink Traps



Sink Trap

healthAIR, inc. was recently hired by several contractors to conduct hazardous waste recovery in Pfizer Corporation R&D laboratories. The laboratories were located in a 8-story building and a 14-story building in Kalamazoo, Michigan. Demolition was scheduled at these facilities and Pfizer Corporation required all laboratory sink traps to be removed, containerized and disposed by hazardous material specialists. healthAIR, inc.’s hazardous waste professionals removed approximately 1,200 large sink traps from

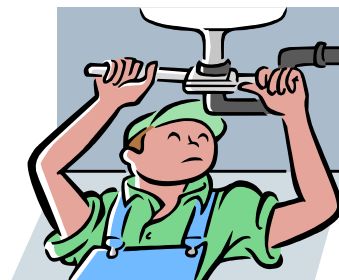
these facilities.

The sinks traps were handled by healthAIR, inc. due to years of use for lab experiments. During our removal of these traps various hazardous materials were observed such as, but not limited to: corrosive liquids, unknown organic liquids, syringes, instrumentation and sludge. All materials were properly removed and ultimately incinerated.

healthAIR, inc. has completed numerous projects involved with science room and laboratory sink

trap recovery. If you have this need or require specialty science room/laboratory clean-up and disposal work please give us a call.

Contact Mike Daul at office extension #26, or at cellular telephone (517) 376-1799. .



## Consulting Services

Book Cadillac Hotel,  
Detroit, MI

### Project Profile—Book Cadillac Hotel



*Asbestos duct insulation*

Detroit's historic Book Cadillac hotel is not ready for Super Bowl LX although healthAIR, inc. did its part in the attempt. In 2002 healthAIR, inc. was contracted by the Downtown Development Authority to inspect the 33 story hotel for asbestos, lead-based paint and other hazardous materials.

Upon our arrival, the building had been unoccupied and unused for almost 20 years. As expected, the building was in poor shape. The roof had been leaking for years, all surfaces were damaged and delaminating and 3 of the 4 basements were filled with water. Our inspection uncovered miles of asbestos-containing pipe insulation and duct insulation. Mold growth was observed at various

locations throughout, although most was observed growing on decades old wallpaper. Leaking PCB transformers were also found on the roof and within the building proper. Upon completion of our inspection, remediation specifications were developed and provided to the DDA. All remediation and monitoring activities were conducted by other companies with the exception of water removal from the basements. healthAIR, inc. filtered and pumped out approximately 3.5 million gallons of water from the BC basements. Continuous sediment sampling and other requirements were conducted as directed by the Department of Water and Sewer.

We are unsure of the new scheduled opening date for the soon to be refurbished hotel but here are some facts on the original Book Cadillac Hotel:

- Built in 1924 it was said to be the tallest hotel building in the world. Stands 351 feet.
- 28 stories, 4 basements and 1,200 hotel rooms.

- Built for \$14 million by the Book Brothers
- Upon completion, the roof held a 30 ft. antenna.
- Most recent proposal by Westin is for a 457 room hotel with 66 luxury condominiums.



*Photo from Friends of the Book Cadillac Hotel at [www.book-cadillac.org](http://www.book-cadillac.org)*

*Mold growth on wallpaper*



### Asbestos Awareness –Who Needs It?

The State of Michigan's Asbestos Program is working aggressively to ensure that required individuals receive asbestos awareness training. We all know that custodians and routine maintenance personnel need this training on an annual basis....but are they the only people that need this training. In a current pamphlet issued by the Asbestos Program, the following question is answered.

**Is the General Contractor/ Project Manager (CM) re-**

**sponsible to ensure that employees/subcontractors have asbestos awareness training?**

*Asbestos awareness training assists employees/subcontractors in identifying suspect ACM and understanding information contained within an asbestos building survey. Therefore, to help assure that a General Contractor/Project Manager properly manages a renovation project in a building containing ACM, it is strongly recommended that all employees/sub-contractors on site have annual*

*asbestos awareness training. Asbestos awareness training helps prevent employees from inadvertently disturbing asbestos-containing materials. The General Contractor/Project Manager is not mandated to ensure that all on-site contractors have asbestos awareness training. However, if an uncontrolled asbestos disturbance occurs, the General Contractor/ Project Manager may be accessed a citation for violation of Part 602(d) (5), - even if a subcontractor created the disturbance.*

*“...if an uncontrolled asbestos disturbance occurs, the GC/PM [CM] may be accessed a citation....”*

www.health-air.com

23941 Research Drive  
Farmington Hills, Michigan 48335

Phone: 248-426-0165  
Fax: 248-427-0305  
E-mail: [sps@health-air.com](mailto:sps@health-air.com)



## Managing Your Hazardous Waste & Potential Funding Sources

Topics:

- |             |  |
|-------------|--|
| Section I   | Hazardous Waste 101  |
| Section II  | Hot Topics in Schools<br>Mercury, Lamps & Ballast<br>E-Waste & Science Chemicals |
| Section III | DEQ Grants/Funding   |
| Section IV  | DEQ Violations   |



Dates/Time:

Friday, February 3, 2006 [8:00 a.m.—12:00 p.m.]

Friday, February 10, 2006 [8:00 a.m.—12:00 p.m.]



*Jenna Sendra  
Certified Microbial  
Consultant*

## Employee Spotlight

Jenna Gillmore Sendra is healthAIR, inc.'s resident Certified Microbial Consultant (CMC). Since 2002, Jenna has been exclusively conducting indoor air quality (IAQ) studies, mold & bacterial Investigations and coordinating various water and radon sampling programs. Prior to the addition of healthAIR, inc.'s Waste Management Services, Jenna handled most liaison work related to coordination and recordkeeping of these activities.

Jenna received her Certified Microbial Consult certification through the American Indoor Air Quality Council and continues to attend seminars and courses in

order to keep healthAIR on the cutting edge of the ever changing word of mold.

Jenna received her Bachelor of Science degree from the University of Michigan Dearborn in Environmental Science. This education combined with her wealth of on-site experience has lead her to the position of Senior Consultant for Indoor Air Quality and Biological Services at healthAIR, inc.

Jenna has been a life-long resident of Ann Arbor and as far as we can tell, never plans on leaving. She has put down her own roots and has recently started a family. Jenna is a great asset to healthAIR,

inc. and our clients. Please feel free to give Jenna a call if you have any questions at all regarding healthAIR's IAQ/biological services. Jenna can be reached at (248) 426-0165 x25 or (734) 239-1424 [cell].

