RADIATION, TOXICS AND INDOOR AIR DIVISION
(RTIA)

www.wvdhhhr.org/rtia
RADIATION, TOXICS AND INDOOR AIR

ENVIRONMENTAL HEALTH (EH)

• Control disease exposures for populations to limit or eliminate disease by regulating various environments/consumables

• Transmission – infectious agents – PHS and EED programs and LHD
  o Food, Water, Swimming Pools, Tattoo Studios, Daycare Centers, Organized Camps, etc

• Exposure – toxins and contaminants – RTIA and EED

In WV, you won’t cross path’s with RTIA programs every day like you do with PHS programs but we are part of EH umbrella and here to help when possible.

In some other states, RTIA done by LHD’s. Questions related to our types of programs will be on the national exam for licensing.
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RTIA PROGRAM RESPONSIBILITIES

• **Radiological Health** – X-ray, mammography, industrial radiological sources, radon, Beaver Valley Nuclear Planning, TENORM, etc.
  
  Rad Health Chief – **Tera Patton**
  Field staff: Justin Teter
    - Alex Grimmett
    - Keith Ratliff
  1 vacancy

• **Asbestos** – abatement/remediation – **Herb Hilleary**
  Field Staff: Scott Maxwell
    - Karol Wallingford, R.S.
    - Ryan Pethtel, R.S.
RTIA PROGRAM RESPONSIBILITIES CONTINUED

- Childhood Lead Poisoning Prevention – Paul Ice
- Indoor Air – no program lead
- Clandestine Drug Laboratory Remediation – aka: Meth Lab clean-up – Alan McCreary
- Certification and Licensing – Libby Armstrong
CERTIFICATION AND LICENSING PROGRAM
For Asbestos, Lead, Radon & Meth Lab Remediation Professionals, Companies and Training Providers
ELIZABETH (LIBBY) ARMSTRONG – REGULATORY LICENSING SPECIALIST 2
(304) 356-4322 – Voice
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Email: Elizabeth.A.Armstrong@wv.gov
All professionals working in the following fields must be trained by state accredited training providers and licensed by the Department:

- Asbestos
- Lead
- Radon
- Clandestine Drug Remediation (Meth)

Annual licenses are required for all disciplines.

- Inspector/Tester (radon)
- Designer
- Worker/Mitigation Specialist (radon)
- Management Planner – management plan required for schools
- Supervisor
- Air Clearance Monitor
- Risk Assessor – Risk Assessment required for daycare centers
Legislative Authority for Licensing Program

- West Virginia Code Chapter 16 Article 32
  - Asbestos Licensure Law
  - Title 64 Series 63 – Asbestos Abatement Licensing Rule
- West Virginia Code Chapter 16 Article 35
  - Lead Abatement Licensure Law
  - Title 64 Series 45 – Lead Abatement Licensing Rule
- West Virginia Code Chapter 16 Article 34
  - Radon Licensure Law
  - Title 64 Series 78 – Radon Licensure
- West Virginia Code Chapter 60A Article 11
  - Clandestine Drug Laboratory Remediation Act
  - Title 64 Series 92 – Clandestine Drug Laboratory Remediation
Training providers in the following fields are required to be accredited by the DHHR and must be re-certified annually:

- Asbestos
- Lead
- Radon
- Meth Lab Remediation

Courses are audited to ensure that the correct topics are covered and for the prescribed amount of time.
INDOOR AIR PROGRAM
IAQ PROGRAM DUTIES

• No funded programs and no regulations
• Mold is the most prevalent IAQ complaint that we receive
  o After flooding is the most significant time for mold concerns
  o Several calls received every year about mold in schools after they have been closed up for the summer
Molds can be found almost anywhere; they can grow on virtually any organic substance (food source), as long as moisture and oxygen are present.

There are molds that can grow on wood, paper, carpet, foods, and insulation.

When excessive moisture accumulates in buildings or on building materials, mold growth will often occur, particularly if the moisture problem remains undiscovered or unaddressed.

It is impossible to eliminate all mold and mold spores in the indoor environment. However, mold growth can be controlled indoors by controlling moisture/humidity.
HEALTH EFFECTS AND SYMPTOMS ASSOCIATED WITH MOLD EXPOSURE

• Allergic Reactions
• Asthma
• Hypersensitivity Pneumonitis
• Irritant Effects
• Opportunistic Infections

Magnified mold spores.
HEALTH EFFECTS (CONT.)

ASTHMA
Exposure to molds can trigger asthma attacks in persons who are allergic (sensitized) to molds. The irritants produced by molds may also worsen asthma in non-allergic (non-sensitized) people.

HYPERSENSITIVITY PNEUMONITIS
Hypersensitivity pneumonitis may develop following either short-term (acute) or long-term (chronic) exposure to molds. The disease resembles a bacterial pneumonia and is uncommon.

IRRITANT EFFECTS
Mold exposure can cause irritation (burning, itching, watering) of the eyes, skin, nose, throat, and lungs.
5 different mold families (note not species) have molds that produce toxins (toxic mold). Toxic molds produce chemicals during their natural growth that are classified as toxins or poisons. The types that have been found to have profound effects on human health, are given the label of "toxic mold". Important to note: Not all black molds are toxic.

Never try to determine the type of mold. Contact a professional to test any mold colony and determine if growth is occurring.

Suggest consultation with their family physician if they are experiencing health effects that could be mold related.

Healthy individuals are usually not vulnerable to opportunistic infections from airborne mold exposure unless heavy infiltration.
People with weakened immune systems (i.e. immunocompromised or immunosuppressed individuals) may be more vulnerable to infections by molds (as well as more vulnerable than healthy persons to mold toxins). *Aspergillus fumigatus*, for example, has been known to infect the lungs of immunocompromised individuals. These individuals inhale the mold spores which then start growing in their lungs. *Trichoderma* has also been known to infect immunocompromised children.

The toxin produced by *stachybotrys chartarum* is the most deadly. It has been tied to diseases as minor as hay fever, to those as serious as liver damage, pulmonary edema, and in the most severe cases, brain or nerve damage and even death. It has also been linked to severe illness in infants. Those with compromised immune systems, small children, and the elderly are highly susceptible to illness when they come in contact with this species of mold.
CONTROL MEASURES

MOLD MUST HAVE MOISTURE AND FOOD SOURCE

• IF YOU CONTROL THE MOISTURE CONTENT, YOU CONTROL THE DEVELOPMENT AND GROWTH OF MOLD

• HUMIDITY SHOULD BE KEPT BELOW 60% INDOORS

• RUN DEHUMIDIFIER IN SUMMER MONTHS AND WHEN ANY KNOWN WATER INFILTRATION HAS OCCURRED

• DO NOT SHUT OFF A/C WHEN BLDG NOT IN USE

• FIX WATER AND ROOF LEAKS QUICKLY

• INCREASED AIR FLOW WILL HELP TO DRY OUT – RUN FANS IN HIGH HUMIDITY AREAS

• DIVERT EXCESS SURFACE WATER

• GET RID OF POROUS SURFACES WITH MOLD GROWTH – BUT........
MOLD COMPLAINTS

• Use caution when suggesting removal of wet or molded building materials – asbestos is an underlying problem with removal of suspect building materials such as ceiling tile

• In Schools:
  o Most often the problem is in the improper design/operation of the HVAC system
  o Local BOE can request the state school board come to do an evaluation of the system to determine why it is not operating properly.
MOLD RESOURCES

• NIOSH Alert: Preventing Occupational Respiratory Disease From Exposures Caused by Dampness in Office Buildings, Schools, and Other Nonindustrial Buildings
• The “Guidance for Clinicians on the Recognition and Management of Health Effects Related to Mold Exposure and Moisture Indoors.”
  • [http://93hc.uchc.edu/images/PDFs/MOLD%20GUIDE.pdf](http://93hc.uchc.edu/images/PDFs/MOLD%20GUIDE.pdf)
• “Mold Remediation in Schools and Commercial Building”
  • [http://www.epa.gov/mold/pdfs/moldremediation.pdf](http://www.epa.gov/mold/pdfs/moldremediation.pdf)
• EPA’s Indoor Air Quality – Office of Air and Radiation
• EPA’s Indoor Air Quality – Molds
• CDC – National Institute for Occupational Safety and Health (NIOSH)
• U.S. Consumer Product Safety Commission (CPSC)
• MEDLINEplus: Molds
• Tox Town – Your health, toxic substances, and the environment
PLACES WHERE RTIA PROGRAMS INTERSECT WITH YOU AND CONSIDERATIONS TO KEEP IN MIND
DURING YOUR INSPECTIONS

REMEMBER: Requiring Repairs To Some Building Components Can Cause Facilities To Be Put In A Position Of Violating Other Regulations – So work with them and be patient.

If Repairs Are Needed, Caution Facilities To Have The Material Being Removed Tested For Asbestos or Lead by a WV licensed professional (And In Schools The Material Going Back In Place).

In all facilities, tests of the material for asbestos and lead should occur prior to disturbing

- Remind them of liability if expose contractor or facility staff or their employees
- If allegations are made about illegal abatement, it can make a facility difficult to sell
- Have to disclose any knowledge of asbestos, lead, meth, and mold during all real estate transactions.
DURING YOUR INSPECTIONS

**DAYCARE CENTERS**
- Daycare centers must comply with their lead risk assessment so requiring them to disturb a painted surface may cause a conflict.
- Ask to look at their risk assessment during your inspections.
- For new daycare centers, educate them about **choosing a safe site**.

- Organized Camps can also be a concern for lead paint since those are considered to be a child’s environment.
• **Asbestos in schools**

  o Must remain in compliance with the AHERA (asbestos in schools act). Requiring them to remove floor tile, cove molding, fix plaster or remove ceiling tile as part of your environmental inspections can put them in conflict with those federal laws.

  o Suspect asbestos material: limits projects as “routine maintenance” to less than 3 square or 3 linear feet. One 2 ft by 4 ft ceiling tile is 8 sq ft. which exceeds the 3 ft limit.

  o Even new schools that should be asbestos free are required to test materials being installed in their new buildings.
DURING YOUR INSPECTIONS

• Asbestos in Restaurants, Hotel/Motel, Organized Camps, Etc
• Most Common Marked For Replacement Are Floor Tile And Ceiling Tile But Could Also Be Cove Molding, Plumbing, HVAC
  o floor tile (9x9 and even 12x12), ceiling tile
  o Cove molding
  o Sometimes it isn’t the tile, but the glue (mastic) that is positive
  o Ceiling tile are always suspect. Fire rated are such because they contain asbestos. Spray on ceiling (popcorn) too!
  o Pipe wrap and HVAC duct joints are often positive
MOLD COMPLAINTS

• HUD HOUSING
  • Housing for those at risk, those often with no other place to go including the elderly and disabled
  • Funding cuts means less maintenance/upkeep on bldgs.
  • Those who complain are considered trouble makers and are often threatened with eviction (often followed up on)

• What can you do to help??
  o Be the boots on the ground. Make a visit. Document findings with written report and photographs.
  o Make findings available to HUD onsite management, housing authority and the complainant
  o Provide complainant with phone number for HUD landlord complaints: 1-800-685-8470 (multi-family units)
DO NOT PUT YOURSELF IN A POSITION WHERE YOU ARE ENTERING INTO A METH LAB SITE. YOU CAN:

• PUT YOURSELF AT RISK OF EXPOSURE
• CROSS CONTAMINATE YOUR VEHICLE
• COMPROMISE CRIME SCENE EVIDENCE (STRICT PROTOCOLS AND RISK THE CASE BEING THROWN OUT)
• NOTIFY OUR OFFICE OF THE EVENT SO WE CAN FOLLOW UP
• KEEP ON EYE ON THE SITE AFTERWARDS TO ENSURE IT IS NOT OCCUPIED ONCE THE SCENE IS SECURED

• Notify our office if the structure’s security has been breached, materials being removed or is being occupied
QUESTIONS ABOUT RTIA?

Call 1-800-922-1255