LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

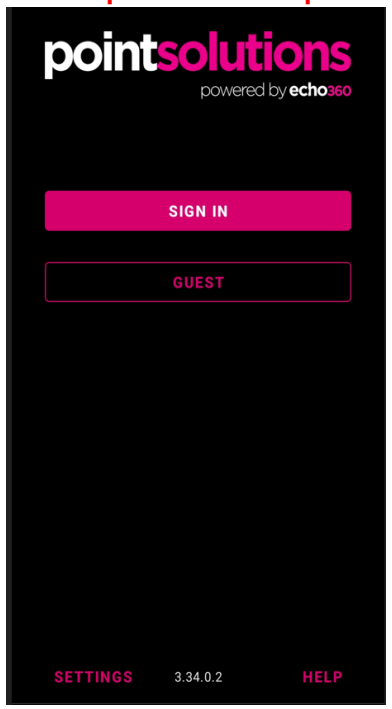
Healthy Housing: Myths, Mysteries and Mistakes 2026
New Orleans

How to get into the game on your phone or other internet machine!

Use QR Code or follow directions below:

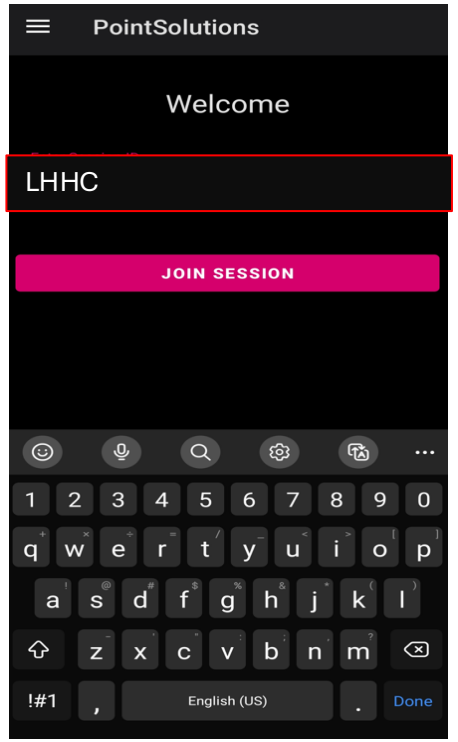
Download Point Solutions App From App Store or Play Store

If Using QR Code, Skip This Step



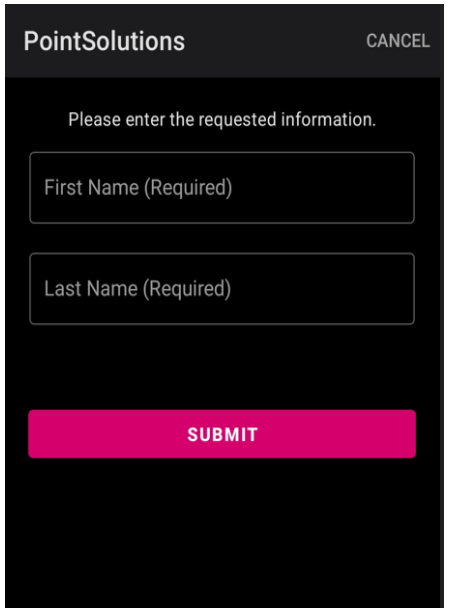
Press on GUEST

Do Not Sign In



Session ID is LHHC or lhhc

Either will work



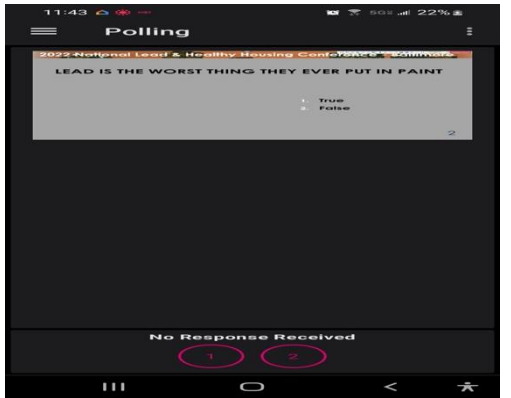
Enter First and Last Name

(does not have to be your real name)

Hit Submit

See Screen above or Screen Similar To Screen Below

YOU ARE IN



LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

Healthy Housing: Myths, Mysteries, and Mistakes

(or, can you think like Mike!?!?!)

Presented by Michael C. Sharp

President of Lead and Healthy Housing Conferences

Senior Safety Officer for Janus Corporation

msharp@lhhconferences.com or mikes@januscorp.com

I am:

Not a Scientist, Not an MD, Not a PhD, Not a Researcher, Not even a Scholar –

However:

As of 4/4/26 it has been 42 years that I have been in the Hazardous Materials Remediation Industry.

Fair Warning

I do not think like other people do! I respect science – sometimes more than scientists do, but we don't have time for me to present all my evidence on every topic today!

You can get copies of my slides and for suffering through my presentation, you also get free follow up.

So here are my credentials and such:

Michael C. Sharp – Curriculum Vitae
(or, just plain old Mike's Résumé)

CERTIFICATIONS & REGISTRATIONS
- Cal/OSHA Director of Training and Accredited Instructor
- CDPH Director of Training and Certified Instructor
- US EPA Director of Training and Certified Instructor
- AHERA BI/MP, CS, PD
- Cal/OSHA Certified Asbestos Consultant
- CDPH Inspector/Risk Assessor, Project Manager, Supervisor
- NIOSH 582

PROFESSIONAL EXPERIENCE
Janus Corporation 2021 to Present
Responsible for Janus Corporation IIPP policies and training.
Ensure Janus Corporation projects are conducted legally, safely, and efficiently.
Regulatory Agency Liaison – for upcoming regulations (Cal/OSHA, CDPH, and Federal EPA)

Hazard Management Services, Inc. - 1984 to 2018
Conducted abatement work for two years, then, when the asbestos consulting field was created by the EPA's AHERA Regulation, became an asbestos consultant. Since 1986, consulted on asbestos, lead, mold, and other hazards surveys, written project specifications, monitored, cleared, and documented remediation projects. Represented HMS, Inc. at conferences, regulatory agency meetings, and with industry organizations. Purchased HMS, Inc. and became President in 1999. Have been CEO and Director of Training since 2007.

As a former business owner, I have in-depth knowledge and experience in the oversight of areas such as health and safety compliance, workers' compensation, general liability, employment practices liability, principles of insurance, and data analysis Clients range in in size from a single School District to the State of California.

UC Berkeley Extension and Center for Occupational and Environmental Health - 1994 - 2017
Started as a guest instructor at the UC Berkeley Extension in 1994. Continued as a full instructor with the program when it moved from the UC Berkeley Extension to the UC Berkeley Center for Occupational and Environmental Health in the early 2000s.

Took over as Director of Training for Asbestos and Lead Courses at UC Berkeley's Center for Occupational and Environmental Health in 2015.

Forensic Analytical Consulting Services / Hazard Management Services Training (FACS/HMS) 2018 – 2021
Director of Training

Work with Regulatory Agencies and Politicians

Assisted California State Licensing Board with establishing the C-22 asbestos abatement contractor's trade license.

Coordinated efforts, and helped resolve disputes, between Cal/OSHA and Federal EPA, ultimately obtaining permission from US EPA for Cal/OSHA to approve Asbestos Hazard Emergency Response Act (AHERA) Accredited Training Providers in California.

Advised Cal/OSHA concerning proposed changes to the lead in construction (8 CCR 1532.1) and general industry (8 CCR 5198) standards. Changes to 1532.1 and 5198 set to go into effect on January 1, 2025.

2018 Conducted informative presentation on the upcoming lead regulation changes for California Department of Public Health's Lead Related Construction Department's "Train the Trainer" workshop.

2021 presented at CDPH's "Train the Trainer" workshop on the varied regulatory dust hazard and clearance levels within the lead industry within California and the on a federal basis.

Assisted with formulations of questions the Government Accountability Office (GAO) developed for industry professionals and the public when the GAO reviewed potential budget allocations for the office of Housing and Urban Development's (HUD's) potential new mandated lead risk assessments. I was also asked to respond to the finalized questions asked of industry professionals concerning cost effective approaches for conducting HUD lead risk assessments.

Worked with CA Senator Monning's legislative staff on bringing the Federal EPA's Lead Renovation Repair and Painting rule into California jurisdiction. This initial effort, ultimately, was unsuccessful but a current version of this (SB 1076) has passed the CA Senate and Congress is awaiting the Governor's signature.

Presented remotely on Lead Hazards for EPA's Nationwide In-House Employee Safety Training Brown Bag Lunch program.

Presented on "Regulatory Compliance" at EPA Region X's Renovation, Repair, and Painting "Train-The-Trainer" seminar for accredited RRP training providers.

EDUCATION
BA of Communications, California State University, Chico, 1988

Author
Lead Author of:
ARCHITECT'S AND DESIGN PROFESSIONAL'S HIDDEN LIABILITY: HAZARDOUS MATERIALS IN CONSTRUCTION Published by American Institute of Architects

PROFESSIONAL AFFILIATIONS
- Lead and Environmental Hazards Association – Past President
- Association of Northern California Environmental Consultants – Founding Executive Board Member
- Member of California Healthy Housing Coalition
- Member of National Center for Healthy Homes
- Treasurer/Secretary – Environmental Information Association – Nor/Cal Chapter

PRESENTATIONS
- **Represented the United States at Japan's International Symposium on Asbestos**, January 2020 Presented on the practice of conducting asbestos inspections and monitoring asbestos abatement projects.
- **Lead and Healthy Homes Conference** – Presenter and Moderator

Lead Paint Regulations, Silica, Mold, Asbestos, Asthma, Healthy Homes, Hazardous Materials Legal Liability, HVAC, and other Issues:
Orlando, Florida, Virtual Conference 2020, 2021, 2022, Washington D.C., Los Angeles, California, New Orleans, Louisiana, Minneapolis, Minnesota, Downey, California, Indianapolis, Indiana
Albuquerque, New Mexico Saint Louis, Missouri

- **California/Nevada Water Environment Association – Transite Pipe, Soil Contamination, Hazardous Materials Risk and Liability Reduction**
San Leandro, California, Santa Clara, California, Reno, Nevada, Las Vegas, Nevada
- **North American Hazardous Materials Management Association National Conference – Myths Concerning Lead Based/Containing Paint; Hidden Hazards to Haz-Waste Handlers and their Families.**
Portland, Main 2019. Denver, Colorado 2020, Virtual Conference 2021

- **Public Agency Risk Management Association – Hidden Liability and Regulatory Changes Concerning Hazardous Materials**
Monterey, California 2020, Virtual Conference 2021, Los Angeles, California 2022

How I Think

I am a college graduate (BA in Communications – Chico State 1988) – but I subscribe to this type of philosophy on life:

https://www.youtube.com/watch?v=kkPA7La8XvY

Rules of the game:

One person at each table needs to do something for me – what would that be?

Stay awake the entire time! (though you can rotate that person).

Blank Looks and Dumb Stares, after I say something, mean want?

You totally understand what I just said.

And then there is the TYPO game:

See a typo – call it out. You get the "Yellow jersey" until the next typo is called out. Last person to find a typo – gets to keep the "Yellow Jersey."

Improper CapitaliZation, and punctuation; do not count as typos!

I am going to ask you questions, you will respond on your phones by selecting answers. You get points for answering in a fashion Mike thinks is correct.

You may or may not lose points for selecting answers Mike thinks are wrong. . .

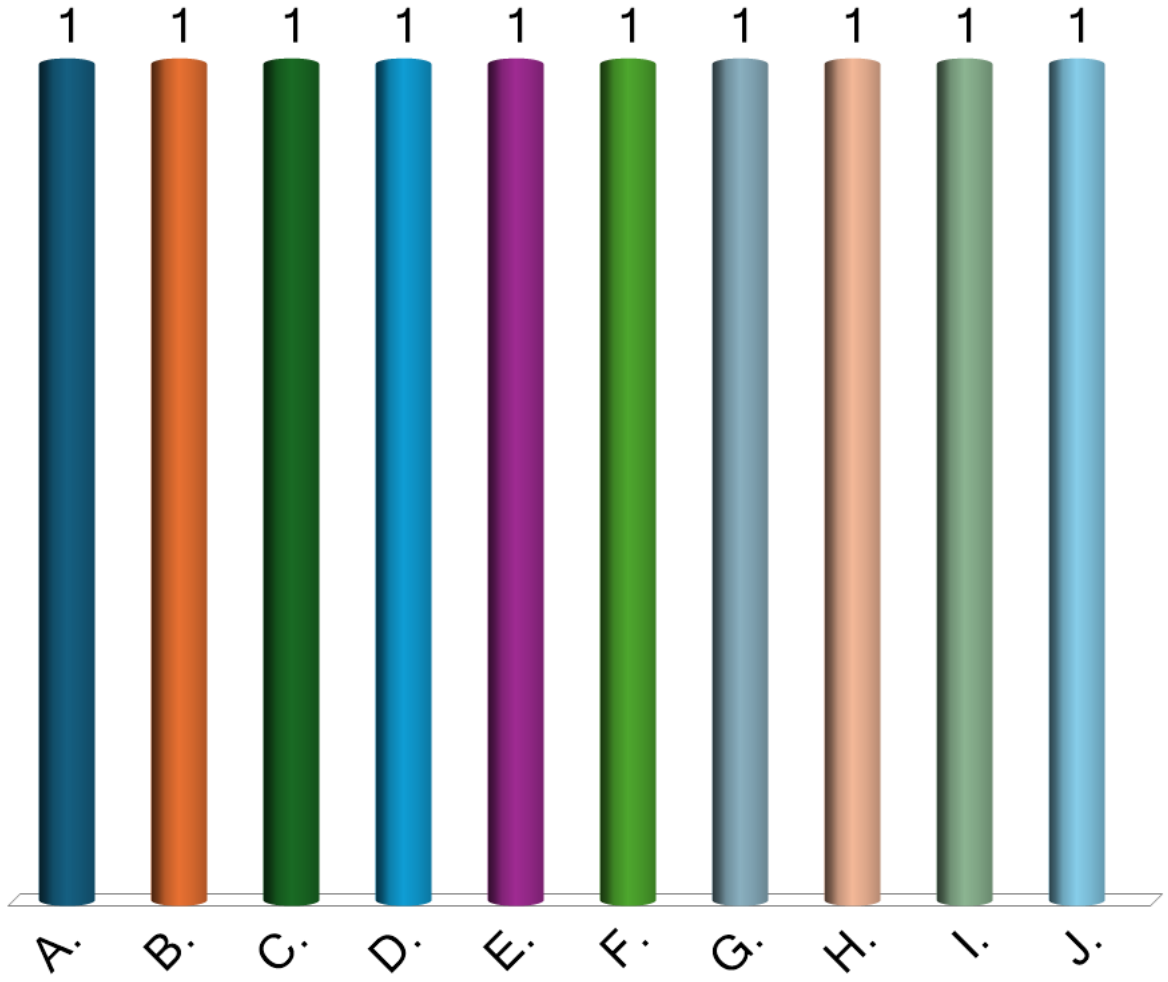
So, can you think like Mike?

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

At what Table Are You Sitting?

Fabulous prizes may depend on this!

A. Table 1
B. Table 2
C. Table 3
D. Table 4
E. Table 5
F. Table 6
G. Table 7
H. Table 8
I. Table 9
J. Unnumbered table, a solo chair, or simply a lone wolf player.



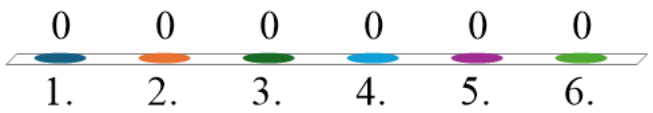
You Are In A Healthy Homes Track.

The other tracks, in the other rooms, are for lead and other issues, so we are going to start with:

Lead, of course!

Which is a "testing combination" per HUD Guidelines?

1. Blue painted wood in bedroom
2. Blue painted wood windows
3. ✓ Blue and red painted wood bedroom windows
4. All above are testing combinations
5. None of the above are testing combinations
6. ✓ I have no idea what a testing combination is – I think this question is unfair! I came here to be taught this type this stuff, man. . . Just where do you get off asking a question like this!



WAIT - WHAT?

Different colored paints are the same paint history when, and because, they are on the same testing combination?

- There are a couple (of totally bogus) reasons for this.
  - Layer and source of paint. But it is really all about the $$$.

Most paint inspections and risk assessments clam to have followed HUD Guidelines – but I find that very few do.

Testing paint and segregating by different colors is not a violation of HUD Guidelines and improves the inspection or assessment.

Insist this happens in your specifications!

That Question Was Just To Check The Knowledge Base In the Room

- Testing combinations are:
  - Room Equivalent
  - Building Component
  - Substrate

Different colors of paint on the same testing combination is not considered a separate paint history per HUD Guidelines.

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

When looking for LBP by a method other than a EPA approved chemical test kit, which of the below most often determines whether or not you find LBP?

A. Experience of the lead inspector/assessor.

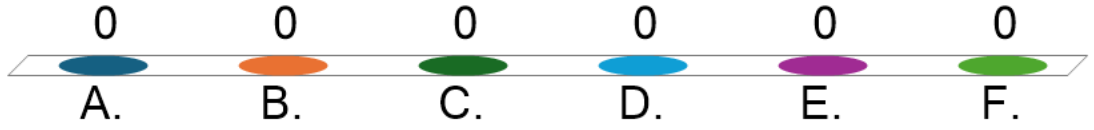
B. How much lead is in the paint, of course.

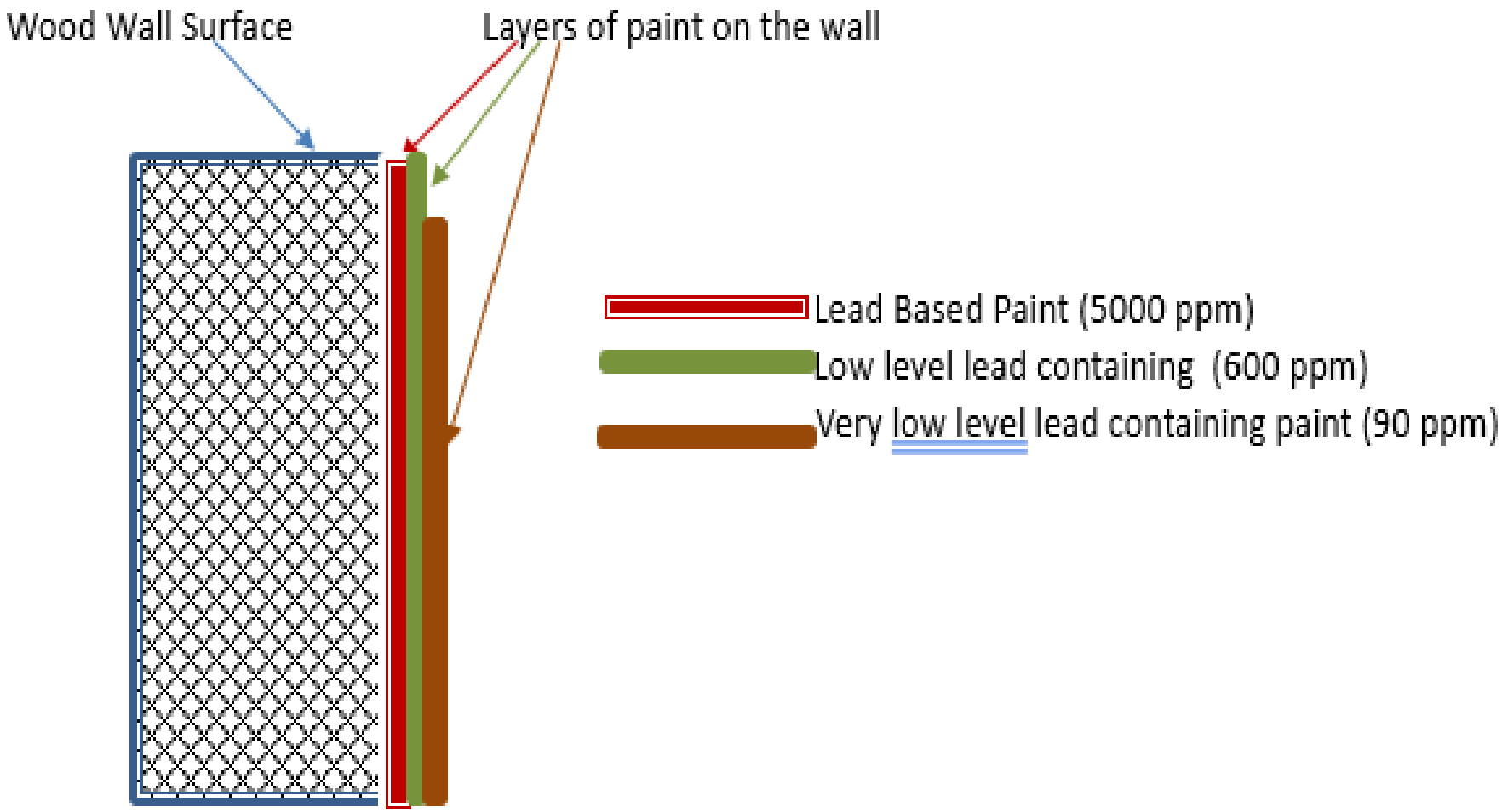
C. Why you are looking for LBP.

D. Quality of the lab you are using.

E. Which analysis you request from the lab.

✓ F. Sample collection style (chip, measured paint chip, or XRF)

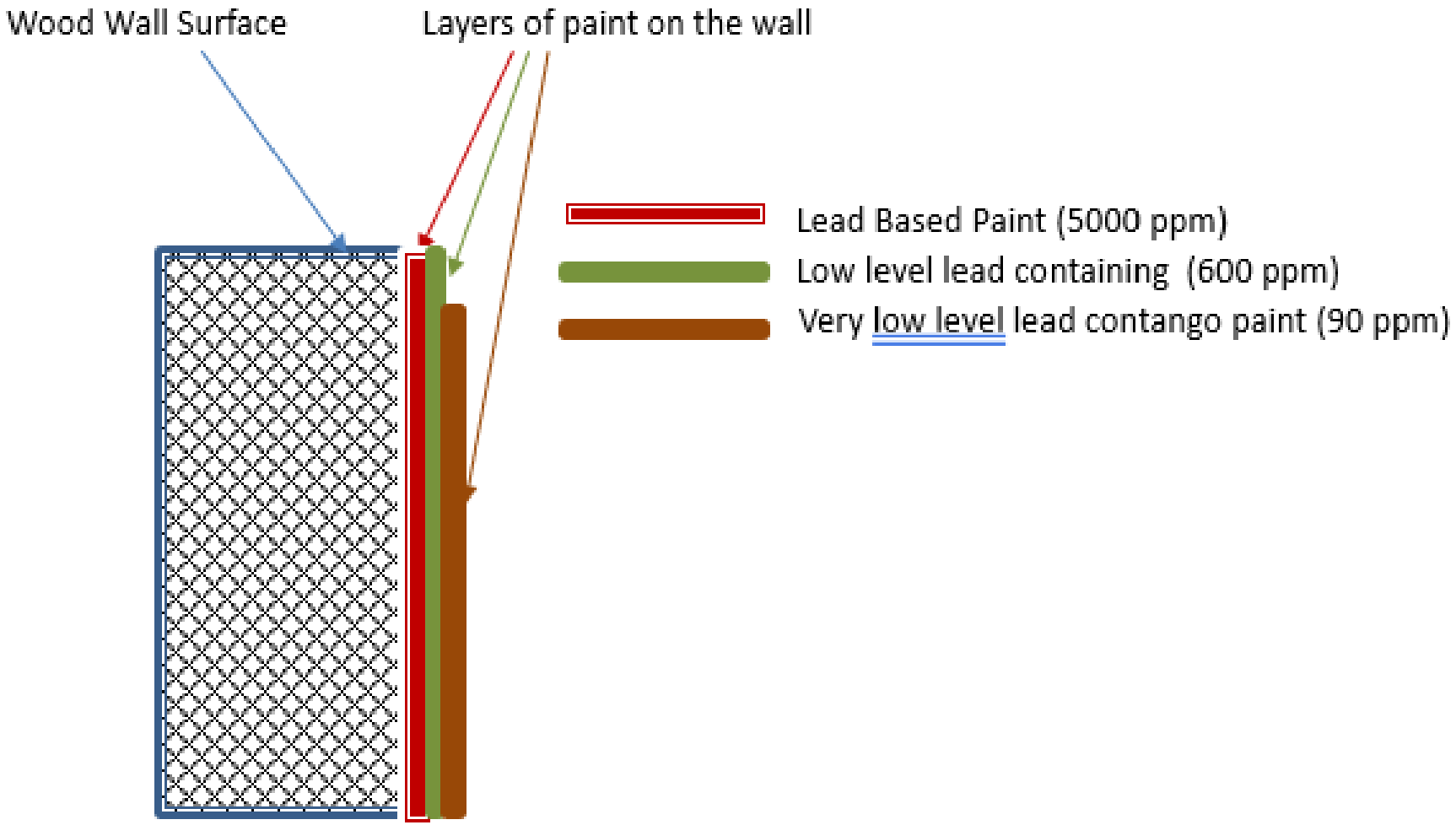




If we collect a paint chip sample that includes all three layers of paint (no substrate is collected with the paint) and ask for analysis by TTLC, Flame AA or simply ask for analysis for lead content, the results will use "ppm" or "percent by weight," as the reporting units.

This sample would almost never come back as LBP despite the fact that one layer of the paint is lead-based paint.

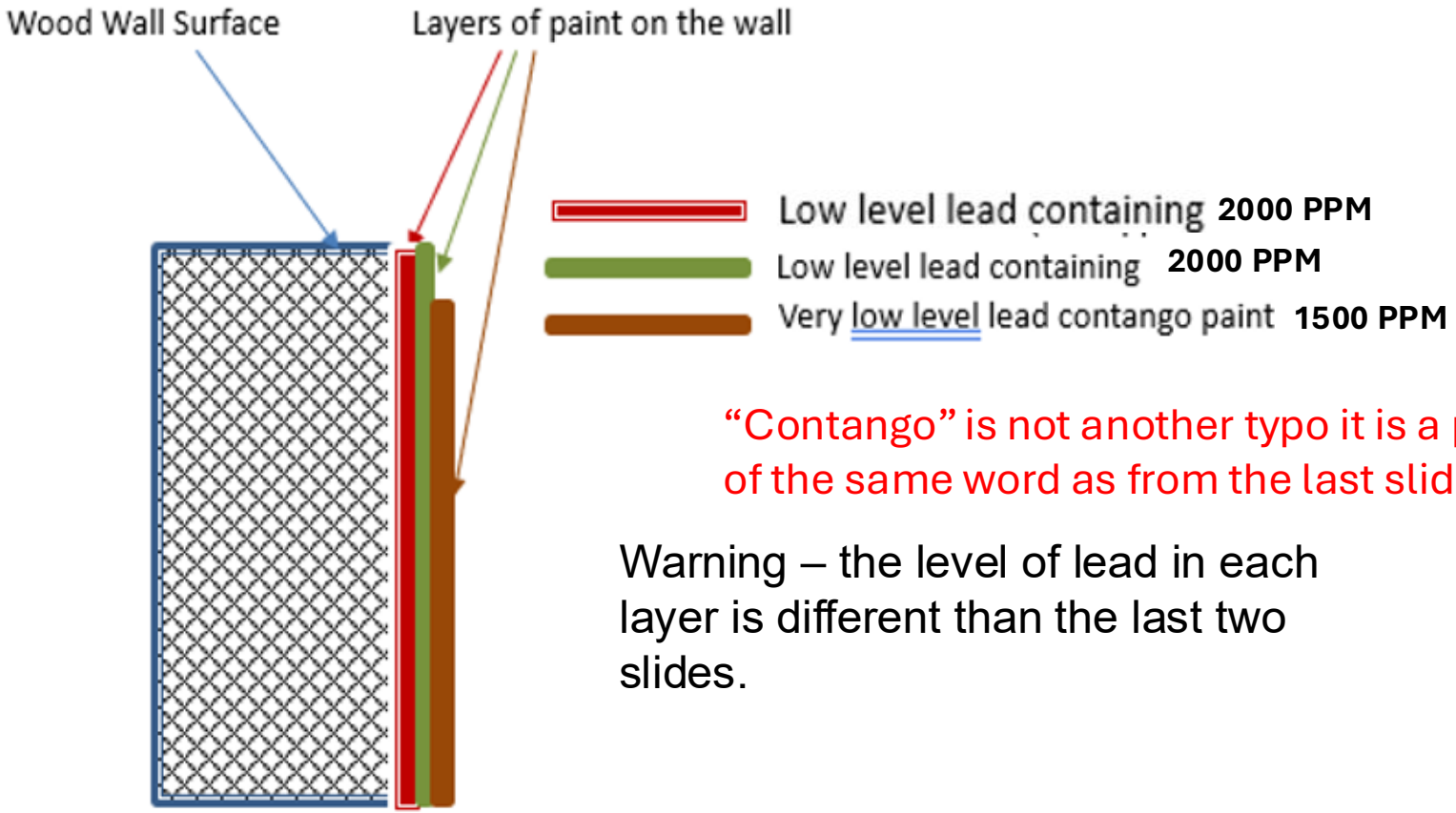
Use of an XRF would find LBP in this instance as well.



HUD recommends (but does not require) the use of measured paint chip samples as a means to avoid this "dilution of lead content" issue.

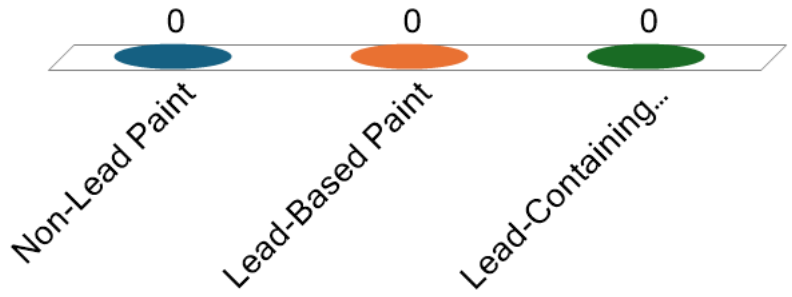
If we collect a paint chip sample and measuring the sample size, assuring we collect 100% of the paint from the measured area (substrate in this sample is acceptable as it will not affect results), the result of the analysis will be in milligrams of lead per square centimeter (lead per area).

This result will always come back at Lead-Based Paint levels.



"Contango" is not another typo it is a picture of the same word as from the last slide.

Warning – the level of lead in each layer is different than the last two slides.



There is no LBP here, so this paint's "lead by area" result would be:

A. Non-Lead Paint

✓ **B. Lead-Based Paint**

C. Lead-Containing Paint

In the name of being a full-service education provider

- There is lead in manufactured baby food.
- There is lead in home made baby food.
- This information was published by the Environmental Defense Fund – written by their former top Toxics Lawyer – Tom Neltner
- Tom now runs “Unleaded Kids”
- Best info I have seen on all things
  https://unleadedkids.org
- Tom Neltner, is at this conference!

Let's Go Back To The Beginning

- Not the beginning of allowable lead in dust levels, but rather where lead in dust actually comes from:

- Deteriorated paint in, or on, homes and child occupied buildings.
  - Paint chips falls to ground, gets ground into dust on floors, other surfaces and into soil.
  - Friction surfaces painted with leaded paint
- Vinyl (vinyl often has lead in it, even when labeled lead free (2000 ppm)).
- Lead Free Solder (can contain up to 2000 ppm lead)
- Soil
- Parents work clothes
- Airplane fuel
- Recasting bullets, reloading shotgun shells
- Stain Glass Artwork
- Lead Fishing Sinkers
- Car brake pads
- And many other sources

OEHHA
Proposition 65 Warnings
Office of Environmental Health Hazard Assessment
www.P65Warnings.ca.gov
PROPOSITION 65

Holiday Lights

Why am I being warned about potential exposure to chemicals in holiday lights?

- Some holiday lights may contain chemicals that are on the Proposition 65 list because they can cause cancer and/or birth defects or other reproductive harm.
- Proposition 65 requires businesses to determine if they must provide a warning about significant exposure to listed chemicals.

Some holiday lights may expose you to chemicals on the Proposition 65 list.

HOLIDAY LIGHTS

Specifically, some holiday lights that contain polyvinyl chloride (PVC) coating on their wires, cables, and cords can expose you to one or more of the following listed chemicals:

- Lead, a metal used in some PVC coatings of wires, cables, and cords to make them more durable.
- Phthalates, a family of chemicals that are added to some PVC coatings of wires, cables, and cords to make them more flexible and durable.

How does exposure to these Proposition 65 chemicals occur from holiday lights?

- During pregnancy, these chemicals can pass from mother to baby.

Loose and peeling paint is not a healthy homes issue unless the paint contains lead.

1. True
2. False ✓

LOOSE AND PEELING PAINT IS A WATER INTRUSION ISSUE!

Plus – there are a lot of ingredients in paint, other than lead, that are hazardous.

Cadmium, Barium,
Nickle, Arsenic,
Beryllium, Mercury,
Benzene, Formaldehyde, Asbestos
and the most dreaded of all ingredients:
Etc.

Why aren't we concerned about these Other potentially HAZARDOUS Materials in paint?

We should be looking for any loose and peeling paint – not just leadbased paint!

We could save millions of dollars if we inspected for deteriorated paint of any type (quicker inspections and no need for any paint chip sample analysis) – rather than for "deteriorated lead-based paint."

We could better protect those we are trying to protect, while effectively reducing costs!

There are some HUD issues with this approach – without proof there is LBP, there are no HUD lead hazard reduction funds – but this approach should work with HUD Healthy Homes funds!

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

In today's world all use of paint containing lead has been banned from use in residential and public buildings within the USA.

1. True
2. False ✓

The Levels of Lead That Make A Paint "Lead-Based" was based on keeping the cost of inspection as low as possible.

- The level an XRF was considered to be both accurate and precise in 1978 was 1.0 mg/cm2.
- .5% by weight and 5000 PPM were half the level of the previous lead hazard standard of 1% by weight or 10,000 ppm in paint set in 1973.
- From 1978 t0 2008 level of lead allowed in paint was 600 ppm, since 2009 to this day, allowable lead in paint has been 90 ppm.
- 600 ppm and 90 ppm were based more on paint manufactures claims that if their paints did not have these levels of lead in the paints, their paints would not work properly.
- Does anyone believe any of these were or were "health based" standards?

How many square feet could require remediation if one square foot of single coating of latex paint is dry sanded without collection/filtering and spread evenly across the floor?

Paint Limit	Clearance Level	Square Feet Over Clearance Level
90 ppm	10 µg/ft^2	4,086 ft^2
90 ppm	3 µg/ft^2	13,620 ft^2
10 ppm	10 µg/ft^2	454 ft^2
10 ppm	3 µg/ft^2	1,513 ft^2

Assumptions:

- **Paint:** Dry paint thickness is 5 mil. Paint solids are 4 pounds per gallon. One gallon covers 400 square feet.
- **Lead limits:**
  - **Paint:** Current is 90 ppb. Possible new limit could be 10 ppm.
  - **Dust-Lead Hazard Standard:** Current is 10 micrograms/square foot. On August 1, 2023, EPA proposed that any measurable amount is a dust-lead hazard. Proposal will be finalized in October 2024.
  - **Clearance Level:** Current is 10 micrograms/square foot. On August 1, 2023, EPA proposed 3 micrograms/square foot must be remediated. Proposal will be finalized in October 2024.

Some data at the bottom of the chart is now out of date.

The current Hazard Level is 3, not 10.

The current Action level (“clearance level”) is 5.

It makes no sense that the hazard level and the action level do not match – though there are those that will argue this by saying hazard and risk are bot he same thing.

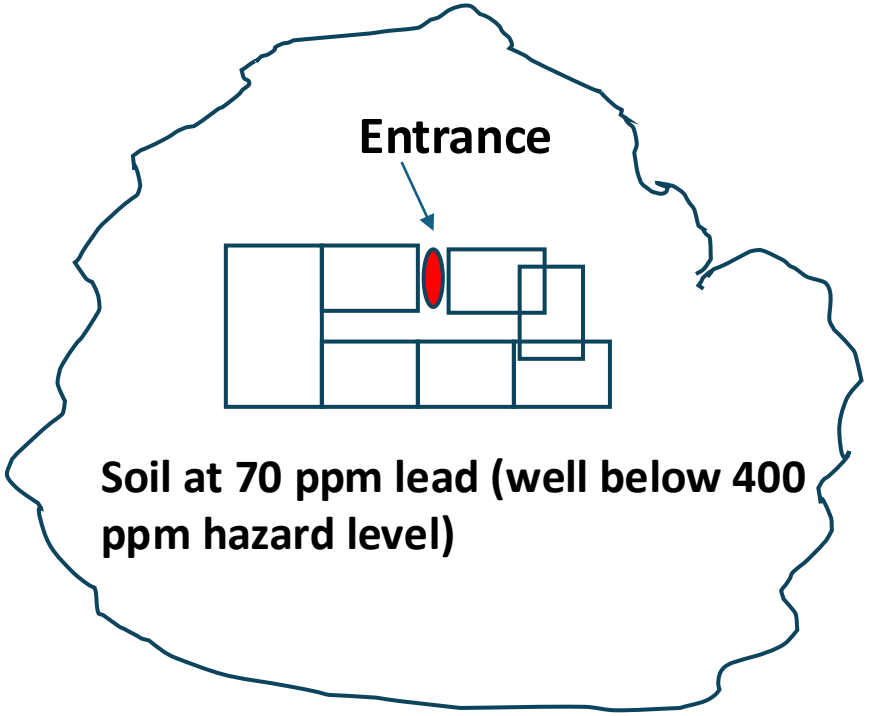
If a contractor cleans to a level below 5 ug/sf but above 3 ug/sf on a floor, the contractor can legally teardown containment, demobilize from the project, and send a bill for the project to the client, **but only it they provide a letter to the client stating they left a documented lead hazard behind.**

✓A. True

B. False

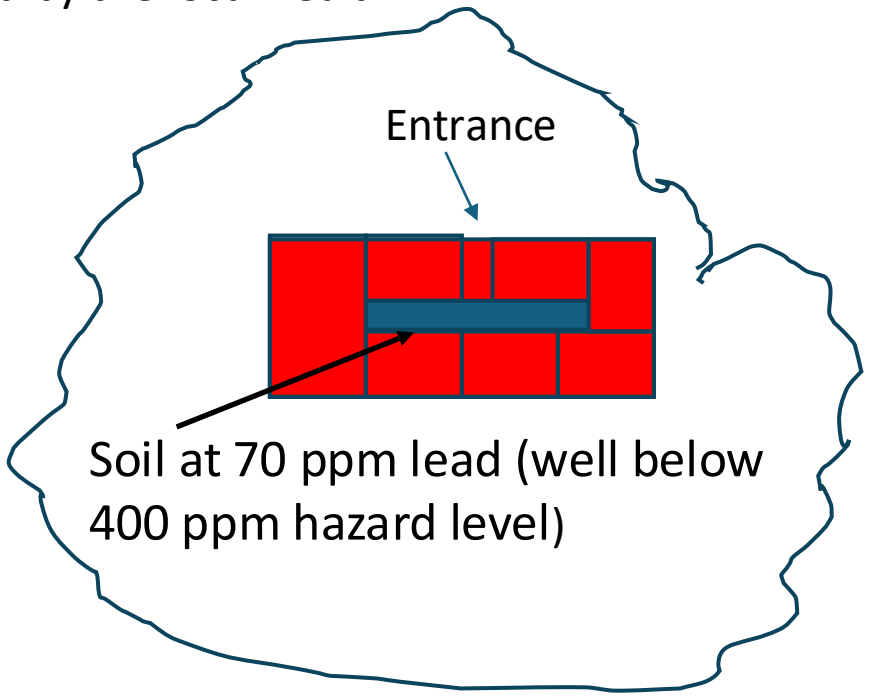
- Oh, and did I mention that there is no need for paint to be at LBP levels for it to create dust and soil hazards.
  - Only way to avoid this hazard is to keep all painted surfaces, regardless of lead content, in good shape.
- Soil containing less the 100 ppm tracked into a house, school, daycare, etc. can create dust hazards, on the floor of a residence or building, instantly.

A Quick Example
(from an actual project) one way soil can cause problems



- Soil outside of an Elementary School has 70 ppm lead.
- Soil was thought to be a non-issue due to low levels of lead. Wipe samples collected inside the entry hallway during construction found to have more than 100 ug/sf.
- This was addressed by placing boot brushes and tacky mats at entry, and daily cleaning of entry hallway.

- How many workers took massive amounts of lead home on their clothes before this issues was addressed by the local health department?



CA Public Health and Safety Code 105255.
(a) No person shall perform lead-related construction work on any residential or public building in a manner that creates a lead hazard.

- **During the course of the project, interior hallway concrete was removed in order to access buried plumbing and drainage pipes.**
- **This exposed the soil from under the concrete. (later found to contain the same 70 ppm lead as exterior soil).**
- **Entire interior of building was found to contain lead hazards (250-300 ug/sf) after this concrete removal (not just on floors but other horizontal surfaces as well – windows sills, firebreaks between studs, casework, etc.).**
- **This generated a local health department mandate to cleanup with clearances (both after clean up and after all remediation work was completed).**
- **CDPH required the site to be posted for abatement activities, and CDPH lead-certified workers to conduct lead cleanup. Federal EPA required RRP certification for the contractor conducting work at the site as well.**

THINK ABOUT A CHILD PLAYING IN 400 PPM LEAD SOIL

Hands

Cloths

Hair

Toys

All could be covered with lead, and all could carry lead indoors!

Select all answers below that describe a way lead has goten into the food we eat at one time or another? Pick All That Are True

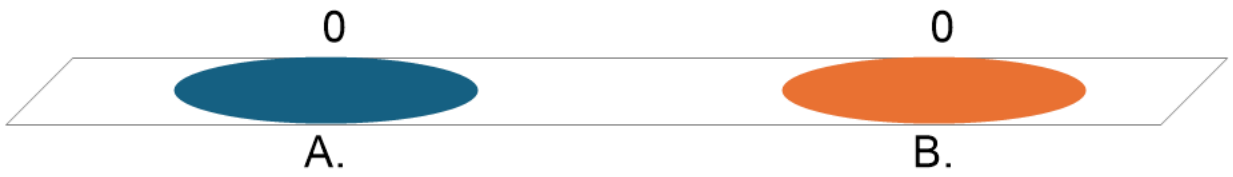
A. Lead in soil, lead is taken up with the water plants need to grow.
B. Lead in tap water which we use to cook.
C. RRP contractors avoiding waste when removing lead-based painted wood (doors, windows, siding) by grinding it up and selling it to famers as ground cover
D. Crop dusters putting lead in fertilizers and pesticides to avoid “drift” of the chemicals when they are applied to crops in the field.

Electricians are exposed to lead on virtually every construction project, remodel or new construction.

✔ A. True

B. False

Remember the lead in the wire jacketing?



Of the choices below, pick all that are a way for plumbers to avoid lead exposure.

A. Use “lead free” solder on copper pipes.
B. Rinse face and hands with water before eating lunch and before going home at the end of a shift
C. Use compression joints on copper pipes.
D. Use PVC pipes instead of copper.

Hey, Mike – note ro self - remember this is a healthy homes session, not a lead session.

Yeah, well, wile I'd argue that lead ***is*** a healthy homes issue, but let's go ahead and get into other issues concerning healthy homes. . .

Indoor air purifiers help improve indoor air quality.

1. True, it is what they do!
2. ✓ False, as used by most people they typically make indoor air quality worse.

INDOOR AIR PURIFIERS MAKE AIR IN YOUR HOME WORSE NOT BETTER (MOST OF THE TIME).

- **Even the EPA, when publishing their studies promoting the use of Indoor Air Purifiers, used to include a study that explains these units do not well work unless the particulate matter they are cleaning from the air remains airborne.**

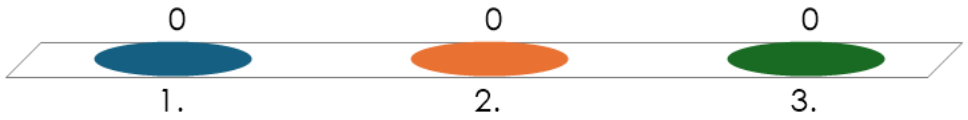
- **Indoor air purifiers blow air all over the room, but only pull air from a few inches out from their intake. A 2000 CFM unit (used on construction and haz-at projects) will only clean the air for about three feet out from the intake. This is a major mistake made by Cal/OSHA for the asbestos abatement field.**

- **Remember, if the air does not pass through the filter, the particulate cannot be filtered out of the air.**

If you want to use an indoor air purifier and have it actually help you:

- Be in the stream of air coming from the unit – but no directly adjacent to the stream of air. The "Buruli effect" will make the air directly adjacent to the stream of air, created by the In-Door Air Purifier's fan, some of the dirtiest air in the room.
- Don't place units at edge of room, near a wall or a curtain.
- Air must pass through the filter to be cleaned.
- You need more than one air purifier in the same room. Two, or better three, work much better – because they blow air towards each other's intakes.
- For gases and vapors – dilution solution can work (especially if outside air is introduced – unless that is where the pollution is coming from). For particulate matter, you do not achieve dilution solution by adding clean air, you reduce hazards/exposures by removing particulate matter.

A two-bucket mop system, as was initially suggested by HUD and the EPA's RRP rule, is a good idea for cleaning hard surface floors.



1. True
2. ✓ False – because the water in both buckets eventually gets dirty
3. Depends on the floor surface (concrete, vinyl, hardwood, etc.)

Mopping floors with traditional string mops or sponge mops tends to spread drit and contaminants around

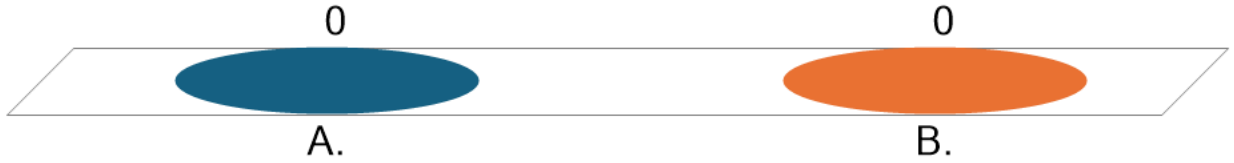
- **Two bucket mop systems typically end up with two buckets of dirty water**
- **Too much water from a mop causes water intrusion issues – especially with hardwood floors, and wall without sufficient base cove (baseboards).**
- **Replaceable-head mops that are changed frequently work much better**

Odor coming from a seldom used drain (sink, shower, bathroom tub, mud room sink, etc.) at anytime and/or gurgling noises that are noticeable at a seldom used sink when another drain is used (perhaps a toilet flushing), typically indicates a major problem for drainage system of a home.

A. True

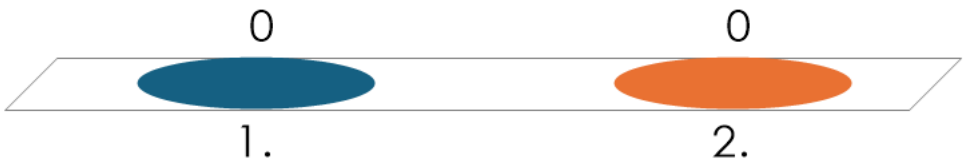
✓B. False

It usually means the p-trap has dried out (evaporation is often the cause). Simply poor a few cups of water in the drain and both the odor and the noise will stop instantly.
If they do not stop after adding water, or return fairly quickly could mean the p-trap has a crack in it.



Most insect enter a home looking for food.

1. True
2. False ✓



- **Most Insects enter a home looking for a source of water, that is why they are most commonly found in the restroom and kitchen areas.**

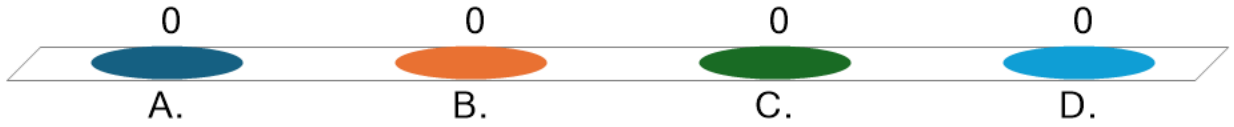
- **Cockroaches can be an exception to this rule. The best way to prevent an infestation of roaches is to clean up thoroughly as they often find the water they need in the foods they eat.**

- **Unfortunately, a clean, dry house is not always proof against insect infestation, if grounds surrounding the house, or under it, are damp. The insects will find their water there and enter your home looking for food and a safe place to nest.**

- **Bed Bugs are an issue all their own and can be found anywhere, even in the cleanest of environments. They typically spread by hitching a ride in a suitcase, on the clothes of a person or in the hair of a pet. Pesticides can kill then but are not as effective as heat.**

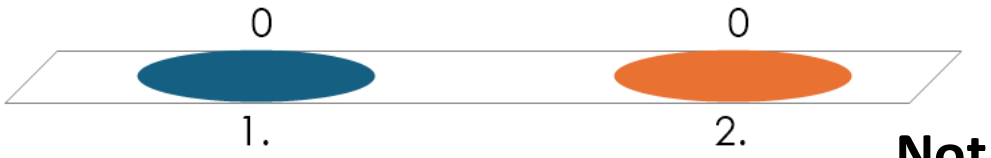
Of he choices below, which is of the following is the best prevention of an invasion of your home by crawling insects (such as cockroaches and their vermin associates)?

A. Spraying bug spray around your home, with heavy doses at doorways and exterior window ledges.
B. Poisoned bait (usually in plastic containers).
✓ C. A roach motel style trap.
D. A bug bomb.



Wait - Bug Bombs are a good way to get rid of all the bugs in your basement or attic.

1. True
2. ✓ False



Not to mention they can make the air in the home toxic for the people in the home as well

Properly trimmed trees will help prevent rodent and insect intrusion into a home

✓ 1. True

2. False

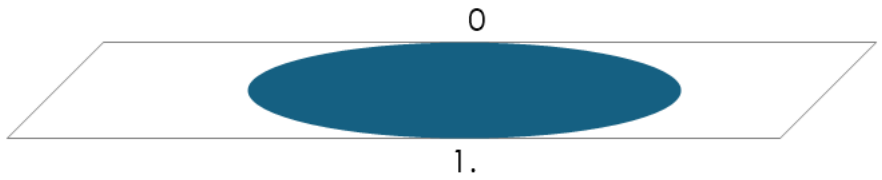
Trees are good for shade - but…

- Trees with limbs that brush against or overhang the roof of the house can provide access to the home to rodents and insects, where they can then find (or make) access to the interior of the home.

- And that's not all . . .

Leaves from a tree can cause water intrusion into a home

(I am looking for 100 precent Correct on this one!)

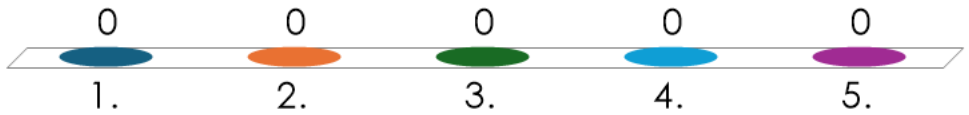


✓ 1. **True - If allowed to lay on the roof (even while still growing), build up in your rain gutters, or against the side of your home**

What must a wooden post supported porch roof, a lattice work shade overhang, a wooden fence (and simialr items) have to have in order to prevent insect intrusion into the home?

Pick best answer only

1. ✓ A METAL BARRIER BETWEEN THE WOOD AND THE HOUSE
2. ✓ AN AIR SPACE BETWEEN THE WOOD AND THE HOUSE
3. ✓ PRESSURE TREATED WOOD BETWEEN THE REGULAR WOOD AND THE HOUSE
4. ✓ ANY OF THE ABOVE IS SUFFICIENT
5. ALL OF THE ABOVE IS REQUIRED



We all know Standing water (or un-kept pools) in a yard is a breeding ground for mosquitos – but this Standing Water will Attract frogs as well.

1. False – Come on, really?
2. ✓ True – they like the water
3. ✓ True – they are looking for food (insects in the water)
4. ✓ Both 2 and 3 are true

When cleaning up trash/debris in the yard you must consider pest infestation within the trash/debris and, not only protect your self from it while cleaning , but also think about where those pest may go when the trash/debris is cleaned up.

✓ 1. True

2. False – just kill the pests when you clean up the trash debris

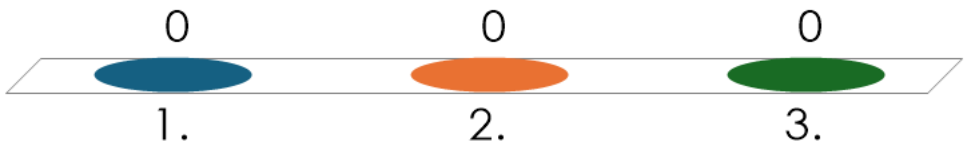
Many pesticides use ingredients that are hazardous to people as well.

✔ A. True

B. False

Many pesticides contain PFAS as an active ingredient – PFAS kills people as well as pests.

When dealing with pest Control Which approach is better?



1. Get rid of one pest at a time – this prevents overwhelming the home with poisons and allows you to clean up small messes.
2. ✓ Address all pests at the same time, or the or the one you get rid of today will come back by the time you get rid of the next one.
3. Pest are a natural part of life – just learn to live with them.

Integrated Pest Management is the best approach

MOLD – SO MUCH FUN!

So Little Agreement on how to look for mold and what to do when you find it!

Or

How mold and fungus are going to save the world!

What is the difference between mold and mildew?

How they are spelled. . .!

Mold and mildew are the same thing, though some consider mold growing only on a surface to be "mildew," both issues are prevented in the same way:

> **Prevent water intrusion in order to prevent regrowth of mold/mildew after you clean it up or remove it.**

Toxic Mold Is The Worst Type of Mold To Find In A Home

1. True – at least where health concerns are an issue.
2. ✓ False – because there is no such thing as “Toxic Mold.”
3. True – and it can require you to burn the house down to ensure no spores are left after cleanup.
4. False – unless it is growing on the surface of a floor, wall, or ceiling.

From The Center For Disease Control's Website:

- ***<u>The term "toxic mold" is not accurate</u>***. *While certain molds are toxigenic, meaning they can produce toxins (specifically mycotoxins), the molds themselves are not toxic, or poisonous.*
- ***Hazards presented by molds that may produce mycotoxins should be considered the same as other common molds which can grow in your house. There is always a little mold everywhere - in the air and on many surfaces.***
- ***A common-sense approach should be used for any mold contamination existing inside buildings and homes.*** *The common health concerns from molds include hay fever-like allergic symptoms. Certain individuals with chronic respiratory disease (chronic obstructive pulmonary disorder, asthma) may experience difficulty breathing. Individuals with immune suppression may be at increased risk for infection from molds. If you or your family members have these conditions, a qualified medical clinician should be consulted for diagnosis and treatment.*

- ***<u>For the most part, one should take routine measures to prevent mold growth in the home.</u>***

Black mold can eat radiation by processing it into harmless energy (like plants can use sunlight for photosynthesis).

✓A. True

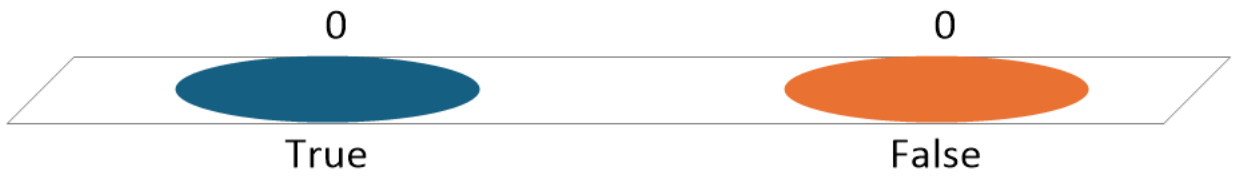
B. False

Microplastic contaminate our ocean and many food sources.

There is fungus that eats microplastics.

✓ A. True

B. False



Here We Are To Save The Day!
Mold that will rescue us from our follies (hopefully before Godzilla rises!)

- The mold that has been found to consume radiation is **Cladosporium sphaerospermum**. This black fungus was discovered growing in the highly radioactive environment of Chernobyl's Reactor 4. It absorbs gamma radiation and converts it into energy, a process called radiosynthesis.

- Several fungi, including species of **Pestalotiopsis, Aspergillus, and Engyodontium,** have demonstrated the ability to break down certain types of plastic, a process known as bioremediation. These fungi can secrete enzymes that degrade plastic polymers, using them as a food source.

What is the most important thing to do when conducting mold remediation ?

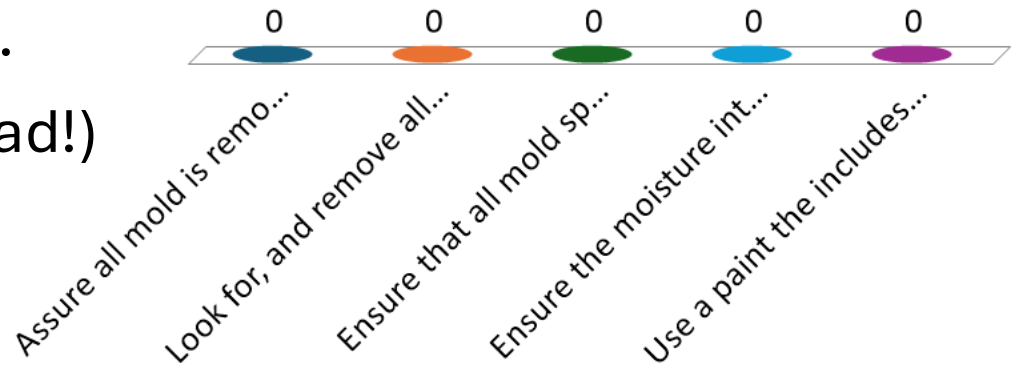
A. Assure all mold is removed from all surfaces.

B. Look for, and remove all, hidden mold growth.

C. Ensure that all mold spores are treated with a biocide, so the mold won't grow back.

D. Ensure the moisture intrusion that allowed the most to grow is stopped and prevented from returning.

E. Use a paint the includes a biocide (other than lead!) to prevent future mold growth.



It is important to know what type of mold is growing in your home/building before you remove

1. True – that is why we do mold tape lift sampling before removal projects.
2. True – that way we know what types of molds to look for on the clearance samples.
3. Both 1 and 2 are correct!
4. ✓ False – pre remediation samples are a useless waste of money (most of the time!)

Type of Mold Present Is Not Important For Remediation Issues

From the CDC Webpage:

- ***Growth occurs when there is moisture from water damage, excessive humidity, water leaks, condensation, water infiltration, or flooding. Constant moisture is required for its growth.***

- ***It is not necessary, however, to determine what type of mold you may have.***

- ***All molds should be treated the same with respect to potential health risks and removal.***

However – any mold you are allergic to, or sensitive to, will affect your health!

There is a theory in CA – per California Department of Public Health – that says the best way to look for mold in a building is by ODOR.

Lawyers laugh at this –

How do you calibrate “the nose”

What happens if you run into a strong odor, do you have to recalibrate the nose before continuing?

No working If you have a cold or allergies!

A WORST CASE SCENARIO MOLD

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

New Orleans

A WORST CASE SCENARIO
MOLD

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

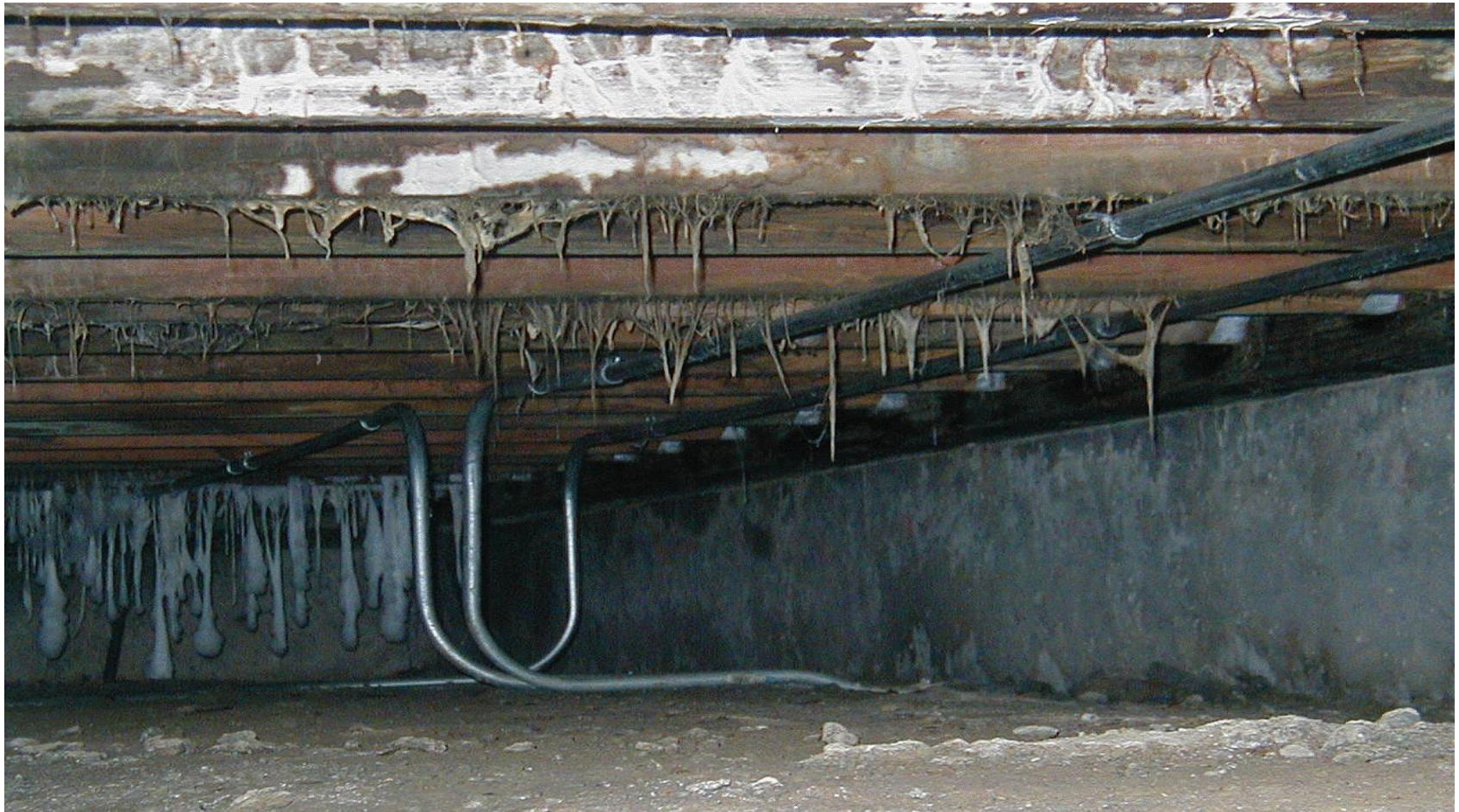
New Orleans

A WORST CASE SCENARIO
MOLD
Do We Dare Go Any Further Into The (Rabbit) Hole?

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

New Orleans

A WORST CASE SCENARIO
MOLD
Just When We Thought It Couldn't Get Any Worse



A WORST CASE SCENARIO MOLD

DID I MENTION THAT THERE WAS NO ODOR AT ALL IN THIS CASE?

There was also no exterior source off water intrusion

This mold grew in an open space within the building that had a sheet vinyl floor above the basement crawl area.

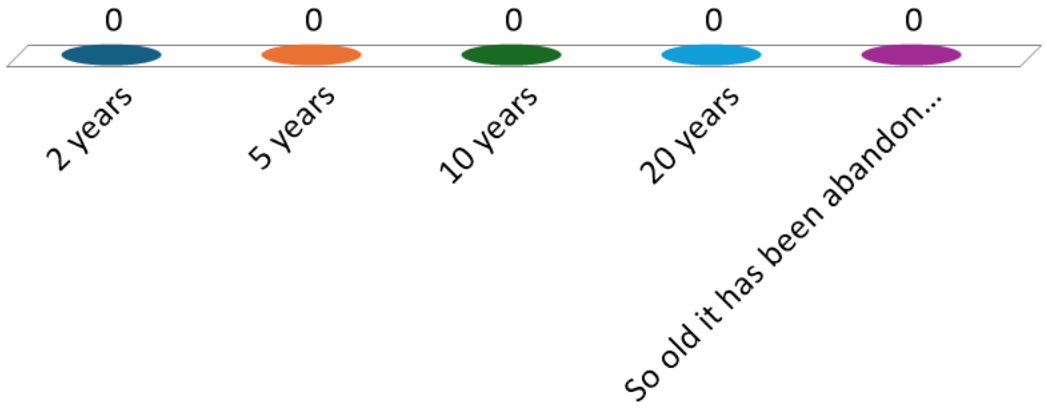
They created a terranium!

Issue with new flooring materials that mot older buildings do not account floor – floor surfaces being vapor tight!

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

I've never Seen Mold Growth Like This. How Old Did You Say This Building Is?

✓ A. 2 years
B. 5 years
C. 10 years
D. 20 years
E. So old it has been abandoned



When conducting mold remediation – you must consider asbestos and lead issues in the materials disturbed by the mold remediation work

1. Nah, mold won't grow in lead.
2. Nope – asbestos is mold proof, as well as lead.
3. Only if it is an old (Pre1978) home.
4. ✓ Though not considered much of the time, both common sense and regulations require asbestos and lead to be sampled for, or assumed present, regardless of the age of the home.

ISSUES WITHIN AND AROUND A HOME
Which are most important to address?

- Falls
- Poisonings
- Fires
- Burns
- Choking
- Suffocation

- Excessive moisture
- Dust
- Ventilation
- Housekeeping
- Maintenance

YOU HAVE TO ADDRESS THEM ALL AT THE SAME TIME!

How do you do an inspection that looks at everything at once?

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

BUT CHECKLISTS CAN BE OVERWHELMING

And there are so many to choose from

(Get Generic Questionnaires from CDC and many Healthy Homes Organizations)

Was questionnaire administered? qYes qNo qWhy not:_____

___
qVacant Date
Name of Que
_____
_____
_____ City, S
_____
_____
unit:_____
of children li
qOccupied q
responses in
ordered from

General Housing Characteristics Type of

ownership qOwn house qRental house
q1950–1978 qDo not know qPost-197
that apply) qBasement q1st q2nd q3rd
changed in past 3 months qNo qDo no
applicable Heating filters (type) qDo n
qNot applicable Heating control qHard
control heat Cooling method used qN
qWindows qFans qCentral/window air
(check all that apply) qOpens window
qKitchen and bathroom fans qWhole-h
House/unit built with radon mitigation
know qYes Chimney inspected or clear
not know qYes Heating system; water

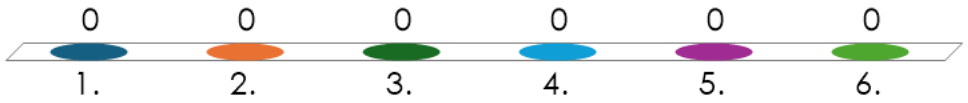
Indoor pollutants Mold and moisture qVisible water/

mold damage qMusty odor evident qUses dehumidifier qNo
damage or odor
heavy rains qNo
qCat (#_____
management qF
qKept strictly ou
qFamily shows e
qbedroom qothe
qFamily reports
Pests: rats qFami
qkitchen qbedro

home safety Poison control and other emerge

response numbers qNot posted by any phone qNot
posted by every phone qPosted by every phone qN
land-line phone All drugs and medicines stored in
childproof cabinets out of reach of children qNo qY
Family fire escape plan qNone qDeveloped and hav
copy available Safe place to meet outside in case of
qNo qYes Home fire drill practiced in last 6 months

What is the most important thing for you to consider when taking any remediation action?



1. The Best Way To Correct The Immediate Issue
2. Other Hazards That May Be Impacted By The Remediation Process
3. The Source/Cause of The Problem/Hazard
4. Problems Left Behind By The Remediation Work
5. Hazards Impacted/Created By Repair/Replacement of The Remediated Materials
6. All Are Equally Important

Healthy Homes Need to be addressed like pest management:

- An integrated approach that address all the hazards at the same time.

- New Term?

Integrated Healthy Homes Management?

(Term coined in Baltimore at LAHH Conference October 20, 2022 – M.C. Sharp)

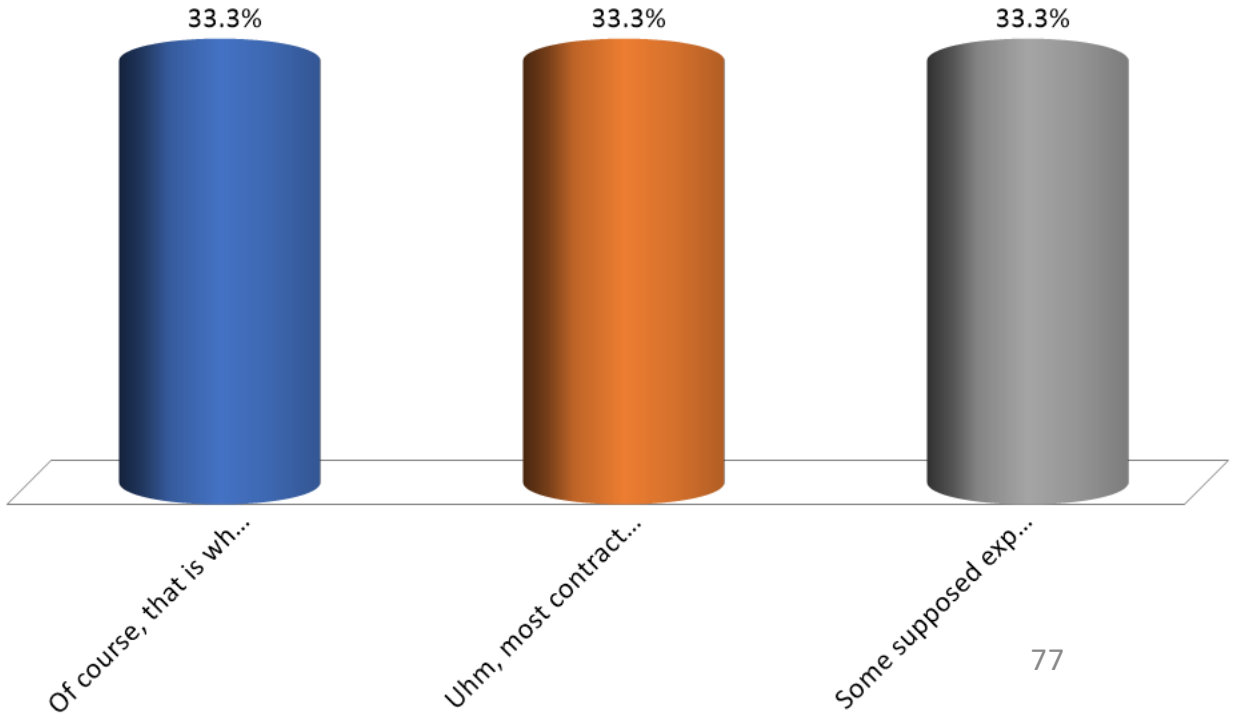
Stop thinking it has to be LBP or the house has to have been built pre-1978! Especially with where acceptable dust and soil levels are at this time.

Most Contractors Comply With Applicable Regulations when they conduct lead Abatement or Interim Controls.

A. Of course, that is why we pay them the big bucks!

✓ B. Uhm, most contractor workers don't even know all the applicable regulations.

✓ C. Some supposed experts even advocate for contractors to ignore applicable regulations when conducting lead work.



From a letter a “Scientist” that spoke to the Cities and Counties in CA that are receiving LBP Paint Manufacturer monies, in response to a letter I wrote, where I explained to the Citys and Counties that when they remove LBP they need to be concerned with asbestos:

> *“No guideline, regulation, or law requires asbestos or testing for other substances in the context of lead hazard control work.*
>
> *In short, his position is not supported by anyone else in the field.“*

A **local level** quote included in the paper I wrote:

"Following up with our phone conversation and until I receive further clarification from the remaining California Air Districts, The Bay Area Air Quality Management District (BAAQMD) position on the subject matter is the following.

Paint is a category 2 non friable material (11-2-209). If the material contains >1% asbestos and is made friable by crushing, sanding, sawing, etc... (11-2-222.3) then it is regulated under Air District Regulation 11 Rule 2."

Salvador Rueda - Senior Air Quality Inspector
COMPLIANCE & ENFORCEMENT DIVISION

A **State level** quote included in the paper I wrote:

From a conversation with Max Weintraub, Director of Lead Related Construction for CDPH (California Department of Public Health):

“I would be interested in understanding why they believe they are not subject to oversight by other state and federal agencies and departments. (Ignoring asbestos) is (to put it mildly) incorrect.”

A **Federal level** quote included in the paper I wrote:

Quoted from an email conversation with Federal EPA Region IX:

“You are absolutely correct in your understanding of the requirement to follow all federal and local Lead and Asbestos regulations when conducting work that disturbs lead and asbestos. There are no exceptions. In the case of any work disturbing lead in California, CDPH and EPA regulations would apply.”

AND

I don't understand the rationale that doing lead abatement exempts them from asbestos regulations.”

Ronald Tsuchiya, EPA Region IX

Maybe they got bored and did not read the whole paper? They are a Doctor, maybe we should seek a second opinion?

Don’t believe everything you hear – **THINK FOR YOURSELF.**

Seek help and answers from experts in the field, but make sure those experts actually know what they are talking about.

Remember, if you have questions (about what we talked about or about related issues), if you want copies of my presentation, or you want backup information to things I have stated, send me an email.

You sat (suffered) through my session – you deserve something for that – email follow up as offered here is what I offer as a **THANK YOU** for being here.

msharp@lhhconferences.com

THERE IS NO COST FOR THIS EMAIL FOLLOW UP! Okay, Okay – Who Won?

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

Team Scores

Points	Team	Points	Team

LEAD & HEALTHY HOUSING CONFERENCES
Information | Education | Networking

You must be present to win!

Points	Participant	Points	Participant

In the unlikely event we still have five minutes before the session is over – there is one more topic we could discuss.