



Show Number: 710

Tom Laubenthal

Asbestos and Lead Past, Present & Future

Good Day and welcome to IAQ Radio+ blog! This week we welcomed Tom Laubenthal of TGL Consulting to discuss Asbestos and Lead Past, Present & Future. Topics that all of our audience encounters and needs to know more about.

Mr. Laubenthal is the owner of TGL Consulting, Inc, based in Ft. Lauderdale, Florida. He has 39+ years of industry service and is considered an internationally recognized subject matter expert within the asbestos and lead-based paint control industries. He has served in a variety of leadership roles including as a past National President of the Environmental Information Association and he is a past recipient of the EIA's Snyder Lifetime Achievement Award. He currently serves on the national board of the Lead and Environmental Hazards Association (LEHA). He manages the Asbestos Professional Networks page on LinkedIn with nearly 17,000 members. The largest web page of its kind in the world. He has published extensively in print and e-media and is regularly invited to speak at technical meetings on topics of asbestos and lead-based paint detection and control. He received his B.S. in Geology from Georgia State University.

Nuggets mined from today's episode:

Let's talk a little about your past positions. You were with the Environmental Institute for a long time. Tom worked for McCrone Environmental Services an internationally known and renowned microscopy organization founded by Dr. Walter McCrone. He left McCrone to accept the position of training director of the Environmental Information Association (then called the National Asbestos Council) <https://www.eia-usa.org/> and managed the largest asbestos worker training program in that era. He later joined with The Environmental Institute, in suburban Atlanta, where he sought to update training materials and methods with his nearly 18 year run with the organization. When teaching Renovation, Repair and Painting program (RRP) he found that students were often under the incorrect impression

that the training courses offered were extension offices of the EPA. We had to explain that we were “capitalists just like them” and not regulators. Early on in the RRP history, many thought they would come to class merely argue about their imposition to have to attend a mandatory class. Few realized that most training providers in the “environmental” training market are primarily for-profit training providers and a handful of university-based programs. He had to explain that he didn’t make the rules; his job was to deliver the information. There are always challenges with different groups of training clients.

After a long stint at TEI, he started his own consulting and training business in Florida in 2021.

Asbestos regulations?

Asbestos is federally regulated with mandatory training and certifications (licensing) in most states for those that provide asbestos control services.

Additionally, approximately 35+ states are designated-EPA programs. [The Asbestos Hazard Emergency Response Act \(AHERA\)](#), written for schools K-12, provided the original foundation for asbestos training programs and defined asbestos inspection sampling formulas.

[The EPA’s asbestos National Emission Standards for Hazardous Air Pollutants](#)

[\(NESHAP\)](#)- is the predominant regulation in today’s marketplace and three questions must be answered: 1) Is the facility regulated by the NESHAP? 2) Is the activity a demolition or a renovation? 3) Does the amount of regulated asbestos-containing material (ACM) meet or exceed the thresholds? Pre-renovation and pre-demolition asbestos surveys must be performed prior to those activities. It may be simple for a renovation, but for a complete demolition, the survey may need to cover all parts of the building. Regulations require that owner/operators know what ACM is present. In some cases partial removal may have to occur prior to demolition. Often times comprehensive removal under local asbestos rules is required. If state/local rules allow for materials that are intact, such as roofing and flooring, they can remain during demolition work, but, clean up the site! Fines have been written for uncontained asbestos-containing waste material left on demolition sites. Some C&D (Construction & Demolition Landfills) may accept ACMs. Many will not!

Lead-based paint (LBP). A basic rule of thumb, the older the building, the more likely it is to contain LBP, from EPA model materials: Before 1940, 87 percent; 1940-1959; 69 percent, 1960-1978 24 percent.

RRP Enforcement. Contractors doing RRP program work generally don't get into enforcement trouble over their fieldwork (work practices and cleaning), it's their record keeping that is often found faulty. The big box companies (such as Sears, Home Depot, Lowes, etc.) that perform thousands of subcontracted jobs daily were targeted by the EPA and fined for lack of training and paperwork. Now their subcontractors must provide documentation and do the paperwork in order to get paid for their work in pre-1978 homes.

RRP surface testing and supply chain challenges. 3M makes LeadCheck swabs, a simple, effective and not perfect method for checking for lead in painted surfaces. There are supply chain issues with Lead Check swabs. The alternate chemical field test, D-Lead, is more complicated to use. With these challenges, most contractors are merely presuming the presence of lead in pre-1978 homes.

XRF= X-ray fluorescence, a fast nondestructive method to measure the elemental composition of a material, can be used to check for the presence of lead. The devices cost \$15K-\$20K, and the X-ray source needs to be replaced periodically at a cost of thousands of dollars. So, this is not often an option for RRP contractors. There is a market opportunity for certified LBP inspectors to market their services to RRP contractors for testing services.

LBL abatement is different than RRP. <https://www.epa.gov/lead/lead-abatement-versus-lead-rrp> "Abatement is a specialized activity designed to address lead in the home. RRP activities (including most home contracting work) disturb paint as a consequence of the activity, but they are often performed for reasons unrelated to lead issues." <https://www.epa.gov/lead/lead-abatement-versus-lead-rrp>.

In most private homes, with an experienced contractor, RRP often is sufficient for lead-safe work. Lead abatement is often performed when federally funded housing has identified LBP hazards and is far more expensive in many cases.

Proposed new EPA LBP clearance standard?

Current Standards and **Proposed Changes**

Dust-Lead Hazard Standards

Current Standards: 10 µg/ft² for floors, 100 µg/ft² for interior window sills.

The proposed standard is “Any level greater than zero reported by an EPA-recognized laboratory.”

Dust-lead Clearance Levels (post abatement/interim controls and federally funded RRP)

- Current values: 10 µg/ft² for floors, 100 µg/ft² for interior window sills, and 400 µg/ft² for window troughs.
- Their proposed values: 3 µg/ft² for floors, 20 µg/ft² for interior window sills, and 25 µg/ft² for window troughs

The Controversy?

Can contractors achieve the proposed standard?

Can chemistry laboratories detect lower levels or must more sensitive and significantly more costly methods be used?

A failure will result in \$1500-\$2500 additional cost with re-cleaning.

Will reduction from 10 ug/ft² to 3 ug/ft² result in significant public health benefit?

https://www.epa.gov/system/files/documents/2023-07/DLHS%20DLCL%20Reconsideration%20Proposed%20Rule%20Fact%20Sheet_0.pdf

Blood Lead Levels? According to Tom (and much published research), there will always be some small lead level in children in areas known to have lead in the environment. Tightening regulations has resulted in lower lead levels in children. After cleaning the interior of homes, lead sources may remain (e.g. lead in adjacent soil and be tracked into home). We have yet to approach the lead problem comprehensively.

LINK- <https://www.cdc.gov/nceh/lead/docs/lead-levels-in-children-fact-sheet-508.pdf>

EPA RRP POST DISASTER LINK (very helpful for contractors!):

<https://www.epa.gov/lead/post-disaster-renovations-and-lead-based-paint>

Has all the low hanging fruit (asbestos) been picked (removed)? NO!

We've been removing asbestos since the late 70's/early '80s. The Initial emphasis was removing asbestos from schools. Much asbestos remains in older commercial and industrial buildings (e.g. paper mills, refineries, mills) we have no idea how much asbestos remains. One thing is for sure, there is much, it will take multiple

generations of workers to remove it. It's estimated that only 25% of the asbestos in schools has been removed.

EPA asbestos "Purple Book" - In 1985, the EPA published the purple book (books were referred to by the color of the cover). The purple book was the "asbestos bible" for many practitioners when it was published. Over time every regulation in the book changed, yet some of the work practice recommendations remain helpful. The book was rewritten by the EIA in conjunction with the EPA for use as content for a website. EIA provided writers, oversight and peer review. The website never came to fruition, the book was converted by the EIA back to book format. Since it's publication in 2015, according to EIA leadership, more than 3,000 copies have been sold. The book is written as a general guide for building owners and managers, it was not specifically written as a procedural document for contractors. Link to the purple book: <https://members.eia-usa.org/store/StoreItemDetails?StoreItemId=19587>

Can you walk our audience through the steps in how to sample suspected Asbestos Containing Materials?

Asbestos Material Sampling Tips:

Tools- 1/2 face P100 respirator (not a dust mask of any type), spray bottle with water and detergent, plastic snack bags (press closed type, not the zipper type), trash bags for waste, 8.5x11 paper, 1.5" chisel, vise grips, wet wipes, nitrile gloves, adhesive labels, marking pen, camera, knife, etc.

Remove material by prying, cutting, breaking. But one must go to the substrate to which the material is attached to assure all layers have been sampled

Take suitably sized samples, size of half dollar, not round per se, think the volume of a half dollar coin.

Wear your respirator

Wear gloves if desired

Pre-wet surfaces to prevent dust generation.

Pre-open plastic bags so that samples can be easily contained.

CEILINGS: Wet spray, when removing ceiling material fold sheet of paper in half lengthwise and hold under area to catch ceiling material during sample removal. Pour sample from paper into plastic bag. Seal plastic bag. Damp wipe exterior of plastic bag. Discard paper into plastic waste bag. Label sample.

PIPES: Wet spray, remove material by using chisel at low angle, place folded paper under to catch material during removal. Some pipe insulations can be thicker than others, you may have to wet surfaces more than once while sampling to prevent dust from being generated. Pour sample from paper into plastic bag. Seal plastic bag. Damp wipe exterior of plastic bag. Discard paper into plastic waste bag. Label sample.

FLOOR TILE: It's always best to sample from a tile in place, but in post disaster work, search for broken tile. Wet spray, remove section of material by using chisel and hammer at high angle, place sample in bag, wet wipe bag, label sample.

WALLBOARD JOINTS: Locate taped joints/seams. Wet spray the joint compound section. Chisel into the joint of joint tape and mud. Use folded paper to catch joint tape and mud. Pour sample from paper into plastic bag. Seal plastic bag. Damp wipe exterior of plastic bag. Discard paper into plastic bag. Label sample.

BASEMENTS- Old furnaces used asbestos paper to wrap joints and seams on ductwork.

MULTIPLE LAYERS OF FLOOR- Take a sample of each layer, if possible.

HEAT CONSOLIDATED MATERIALS- Try and separate if possible. Some materials will be annealed together after fire events and will require vigorous means to sample them.

Home ROOFING SHINGLES- Rarely contain asbestos today, most have been removed over many years. FLASHING CEMENTS- May contain asbestos.

TRANSITE SIDING- Use vise grips to break off sample, half dollar size at most.

In all cases, wear that half face respirator with P-100 cartridges, no "dust masks" are allowed for asbestos protection by OSHA, no matter the rating. Clean your tools, clean your hands, clean sample containers, and always remember to label and record samples numbers and locations as you go.

Has asbestos and lead sampling and testing been abused?

There are case histories of shoddy inspections where known ACM have been purposely overlooked in buildings. There have been cases of collusion and inspection fraud where labs reported asbestos when ACMs were not present. The OSHA, EPA and Department of Justice (DOJ web pages) have documented numerous sampling fraud cases over the years.

Do you opine that restoration contractors rely upon the services of 3rd parties or are you okay with restoration contractors doing their own sampling? Tom has no problems with restoration contractors taking samples who have undergone the necessary training. Provided state/local regulations only allow 3rd party firms to do so. Always know the local regulations.

Is it true that homeowners are not governed by OSHA and can perform their own asbestos and lead sampling? While he frowns upon homeowners from doing their own sampling (or removal) due to safety concerns, there is no prohibition against it.

What is the truth about asbestos related disease? The number of people with asbestos related lung scarring (asbestosis) is going down. Many of the greatest generation are gone. Vietnam era age men may be the last generation with significant exposures of that nature. We're also seeing, perhaps, a slow downward trend in mesothelioma. Asbestos diseases still occur, but with regulations and the use of respirators, we've seen a significant improvement.

Why is mesothelioma in the UK still a big issue? As I know it, in the UK and Europe gypsum drywall is not used, they use building wallboard materials that may contain asbestos (often amosite) by design, so they have higher levels of asbestos exposure and related diseases.

RoundUp

What does the future look like for asbestos and lead? An astronomical number of pre-1978 homes in the US still contain lead. There is a shortage of lead inspectors and lead risk assessors in the US. In many marketplaces there are few experienced LBP abatement contractors.

We don't need more asbestos or LBP regulation in the US. What we need is enforcement of the regulations we have. Most enforcement today is at the state level. Without some level of enforcement, especially for EPA's RRP program, compliance is hardly assured.

Property risk managers need to take the asbestos risks seriously for their maintenance staff, vendors, and workers. The liabilities of not do so can be a long-term mistake.

RRP is the primary LBP work in private homes. HUD and federally funded housing is where we tend to see LBP abatement because of regulation requirements. There have been massive lawsuits based upon lead poisoned kids. Protect yourself and your company by maintaining records of training, PPE regulation compliance and monitoring.

Know and understand regulations by READING THEM before you promote yourself as an expert. PowerPoint presentations in short courses NEVER replace actually reading regulations.

<https://www.iaqradio.com/wp-content/uploads/2023/10/REPRESENTATIVE-LIST-OF-MATERIALS.pdf>

Very interesting video on lead ingestion risks from deer hunting, submitted during the broadcast.

"A source of lead that is under the radar is from hunted meat. Here is a link to a short video. This could be significant lead source in household who eat lots of game - and also a factor in food banks."

<https://www.youtube.com/watch?v=V50bqMrF3Ng>

Z-Man signing off

Trivia

What is the common thread shared by these celebrities: Steve McQueen. Ed Lauter, Merlin Olsen and Paul Gleason?

Answer: died from mesothelioma

Answered by Brent Kynoch