

# **Asbestos: Identification and Training**

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## **Welcome and Overview!**

- We will be discussing the importance of identifying asbestos in the workplace and how that is done using licensed asbestos inspectors.
- We will discuss the importance of a clear report after an inspection is done as a tool to make good decisions prior to renovation or demolition.
- We'll discuss employee training based on the scope of what the employer wants them to do with the asbestos in the workplace.
- We will open it up to discussion at the conclusion, but if you have a question during the presentation, please raise your hand and we'll get it answered!

## Regulation Timeline

- **1990 – NESHAP (EPA)**  
*National Emission Standard for Hazardous Air Pollutants regulates asbestos in demolition and renovation.*
- **1994 – Final Rule on Asbestos (OSHA)**  
*Regulates asbestos removal and inspections in commercial/public buildings.*
- **1995 – Public Act 89-143 (IDPH)**  
*Requires workers, supervisors, inspectors, and contractors to be licensed when working in commercial/public buildings.*
- **1999 – Asbestos Abatement Act (IDPH)**  
*Revised their regulations to include commercial/public buildings.*

## What Facilities are Regulated?

*The EPA defines a facility to include any institutional, commercial, public, industrial or residential structure, installation or building.*

*Residential buildings with four or fewer dwelling units are excluded.*

## Widespread Usage

Asbestos was used throughout the 20<sup>th</sup> century in practically every building material.

To simplify, a good rule of thumb is to have building materials tested that are not rubber, wood, metal, and most concrete.

There is no way to know if a material contains asbestos unless you have it sampled properly and analyzed in a laboratory.



## Inspecting for Asbestos

- In Illinois, a person must be a licensed asbestos inspector with the Illinois Department of Public Health (IDPH) to take bulk samples of materials for the presence of asbestos.
- Anything suspect must be sampled properly to prove it does or does not contain asbestos.
- Typically three samples that show NO asbestos content is sufficient to say the material does not contain asbestos. There are exceptions.
- For some materials, such as plaster or a spray-applied fireproofing, additional samples must be taken to be sure it does not contain asbestos.

## Inspecting for Asbestos

- The bulk samples are sent to a laboratory for analysis. A bulk sample is taking a physical piece of the suspect material. Usually about the size of a nickel or quarter.
- Labs use two types of analysis for asbestos bulk samples.
- PLM, or polarized light microscopy is typical and runs about \$20 per sample for the analysis fee. Standard turnaround is a week.
- TEM, or transmission electron microscopy is a better test that is more expensive but is done on certain materials that are difficult to analyze accurately with PLM. These run about \$75 each and standard turnaround is about a week.

## Inspection Results



- Once the lab results come in, your inspector can help determine if any additional sampling or analysis is necessary.
- Anything you will disturb during renovation or demolition should be sampled prior to disturbance.
- The inspector's license number, lab that read the samples, and the type of analysis should be provided to you in case a notification must be filed for any asbestos removal work.
- The final report from the inspector should provide details, locations, pictures, and more.

## EPA Requirements

The EPA NESHAP regulations were finalized in 1990 and are part of the Clean Air Act.

These rules are Federal but are also enforced by the IEPA here in Illinois.

NESHAP requires sampling properly prior to disturbance if you're in a commercial/public building or a school. Only residential properties in certain instances are also regulated.

NESHAP also requires removal to be done properly and IDPH requires contractor licensing and more!

## OSHA Requirements

OSHA's Final Rule on Asbestos in 1994 requires a variety of things that building owners must do when it comes to protecting employees from asbestos.

PACM or presumed asbestos containing materials are those things that are most likely to contain asbestos. Thermal system insulation, flooring, and surfacing materials (spray-applied) installed prior to 1981 are considered to be asbestos-containing unless sampled and proven not to be.

Remember, in Illinois, the IDPH would require those PACM materials to be sampled first by a licensed inspector.

## Inspection Reports

- Inspections done properly can be invaluable during a demo or renovation project.
- Thorough inspections of those areas affected by the project are important, so find a consultant that has experience in this field.
- Asbestos abatement contractors will need this information to provide accurate pricing for their services.
- Your consultant should provide a clear report and explain things to you.



## Things Most Don't Think About

Ceramic Tile Grout/Mortar  
Metal Sink Undercoating  
Vermiculite Insulation  
Window Caulking/Glazing  
Drywall Joint Compound  
Gaskets/Sealants  
Mastics – flooring, ceiling tile  
Duct Pin Mastic  
Lightweight Concrete  
Floor Leveling Compound

## Employee Training

- When you have friable asbestos, material easily crumbled by hand pressure, or damaged asbestos, employees must have at least awareness training.
- This training is done in factories, schools, and a variety of commercial buildings.
- Employees must be given the basics on asbestos, health effects, how to work safely around it, and how to report an issue in their work area.



## Employee Training



- If an employer wants to have their staff be able to remove asbestos, further training would be necessary.
- OSHA divides asbestos work into four classes and each class has its own requirements on training.  
  
Class 1 – thermal and surfacing  
Class 2- all other materials  
Class 3 – repair or maintenance  
Class 4 – clean up
- Employers should consider the liability, higher insurance costs, and equipment necessary.

## Employee Training

- Good training can reduce your liability by making staff aware asbestos is present in the building.
- Employees that are more aware of asbestos in the workplace are less likely to disturb it and cause a costly clean up and/or fines.
- OSHA requires the training.
- Keeping records of the training is important.
- Annually updating the training is key to making sure staff remembers the information and to provide updates to them as things change.
- Training can be helpful if done properly without scaring employees with information about the health effects, etc.

## Review of Information

Have a licensed asbestos inspector bulk sample any suspect materials prior to renovation or demolition.

The licensed inspector should provide a report that gives details about the materials in your workplace. This should include quantities, friability, and other important things that would be useful down the road.

Having your consultant explain their report and findings so you can make good decisions on what is the best course of action is important.

Training your employees properly is very important to keep them informed, to comply with OSHA, and to be sure asbestos is not disturbed.

Asbestos rules can be complicated with OSHA, EPA, and IDPH in the mix, in addition to any local city or county rules that might apply.



Last Call!

Any questions?



Keep us in mind to help you on your next project!

- *Asbestos Inspections and Sampling*
- *Asbestos Removal and Repair*
- *Asbestos Project Management/Design/Air Monitoring*
- *Asbestos, Lead, and Safety Training*
- *Asbestos Consulting*
- *Asbestos Management Plan Reorganization*
- *Lead Inspections and Risk Assessments*
- *Lead in Water Testing*
- *Indoor Environmental Quality*
- *Bleacher Inspections*

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THANK YOU FOR  
ATTENDING!

