



Bockmann Industrial Services, Inc.

PIPE COATING SPECIALISTS

Bockmann Industrial Services

- Formally know as Bockmann Inc. (1983)
- Services offered at Bockmann Industrial include:
 - Testing of asbestos, PCB's, Lead
 - Remediation of asbestos, PCB's, and Lead
 - Assist owners/contractors with compliance programs and training
- Bockmann Industrial Services (BIS) operates in Nebraska, South Dakota, Iowa, Minnesota, Michigan, Kansas, Oklahoma, and Texas.

Regulated Materials

1. Asbestos
2. Polychlorinated Biphenyls (PCB's)
3. Industrial Lead Paint

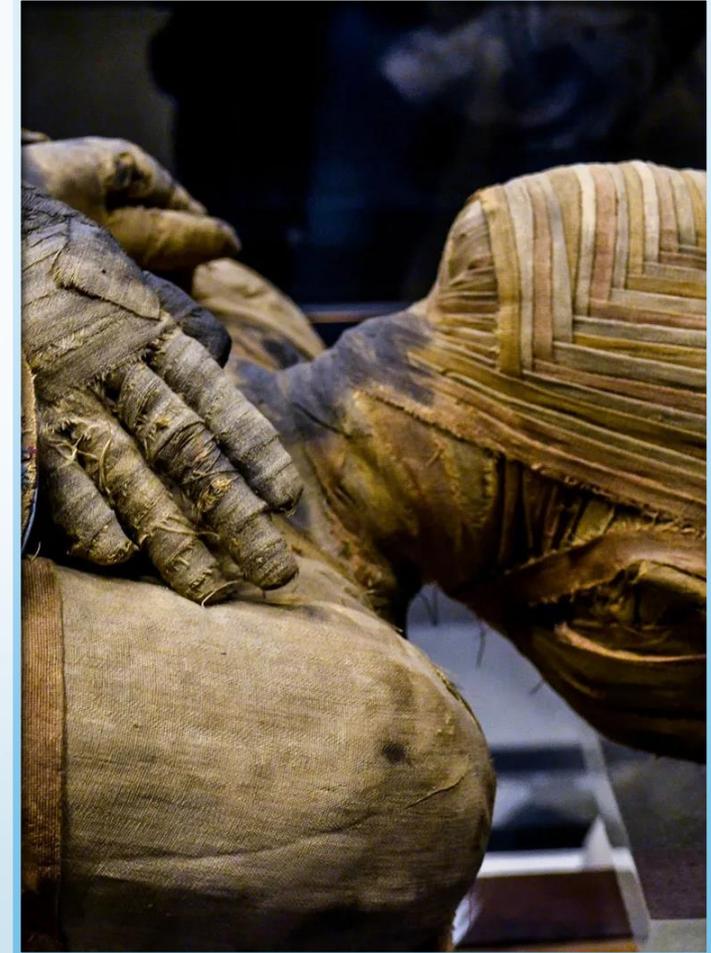
Common Hazards Found in Pipe Coating and Wraps

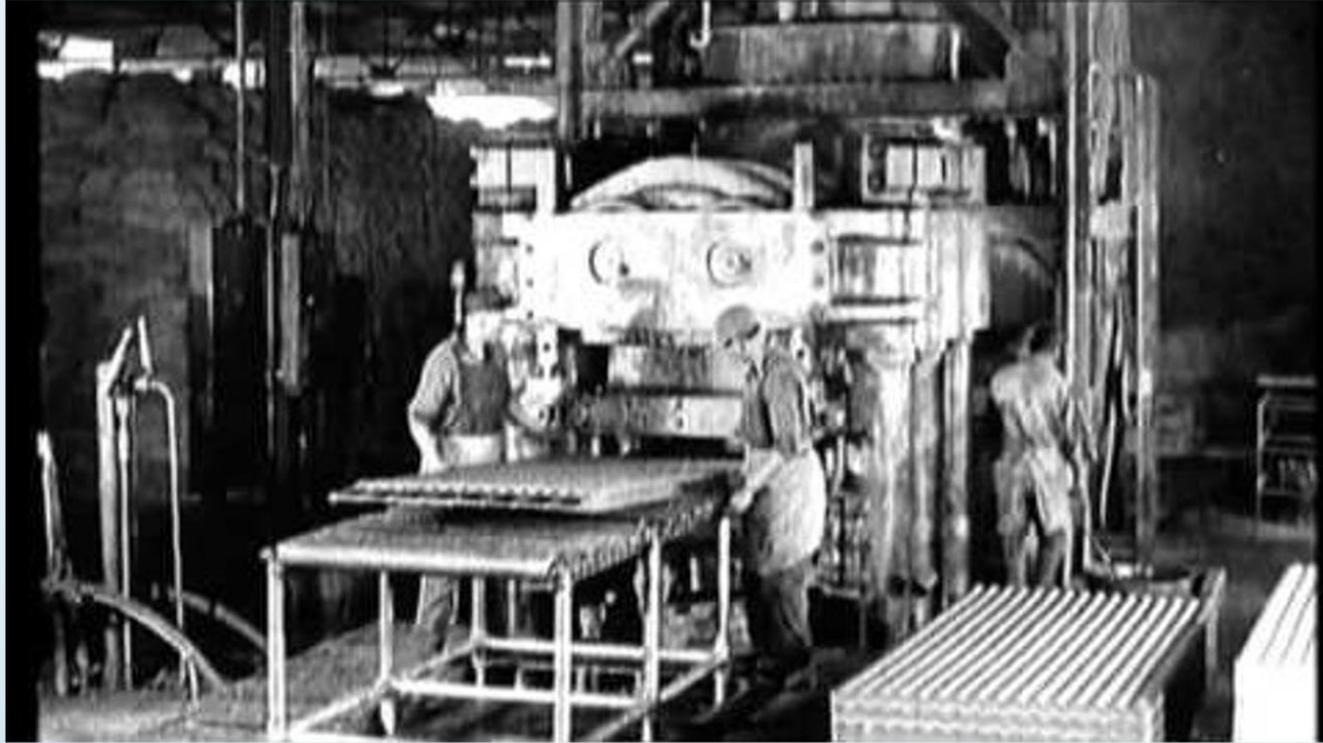


✓ Both images contain asbestos & PCB's

History

- Derived from Greek word meaning “inextinguishable or unquenchable”
- First recorded use was 2500 BC in Finland
- Archaeologists have found corpses wrapped with asbestos cloth





Where does asbestos come from?

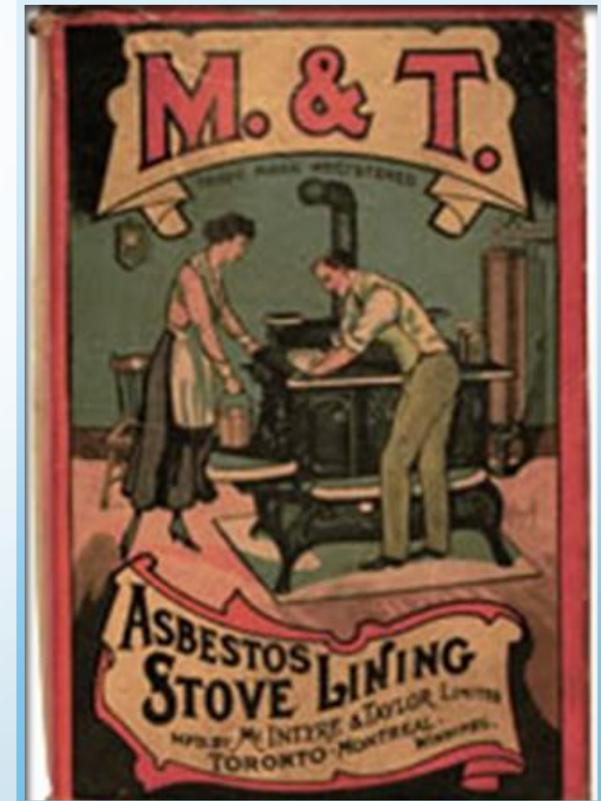
Asbestos was mined in:

- United States
- South Africa
- Soviet Union
- Canada



Properties of Asbestos:

- Thermal resistant
- Chemical resistant
- Electrical resistant
- High tensile strength

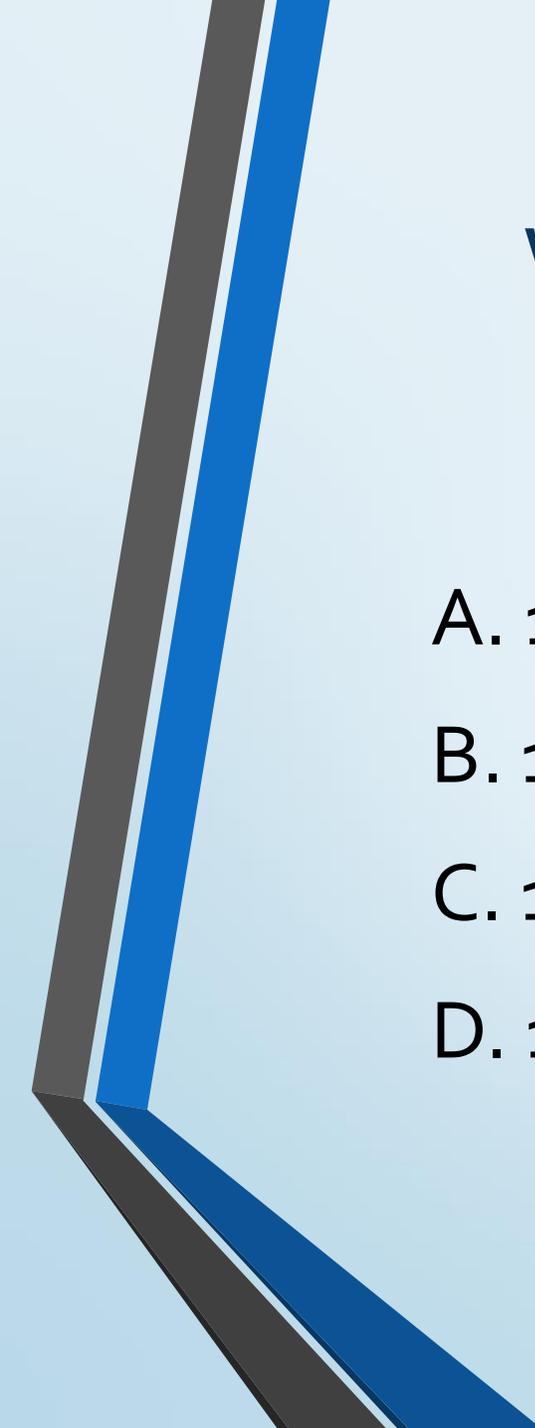




Most Common Type of Asbestos
Chrysotile was used in 3,000 building materials.



Chrysotile Bundles



What year was asbestos banned in the United States?

A. 1950

B. 1960

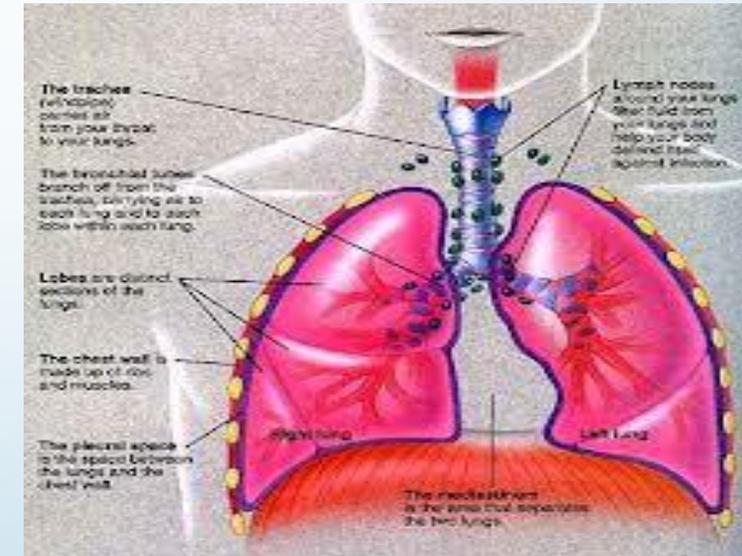
C. 1978

D. 1985

Health Effects

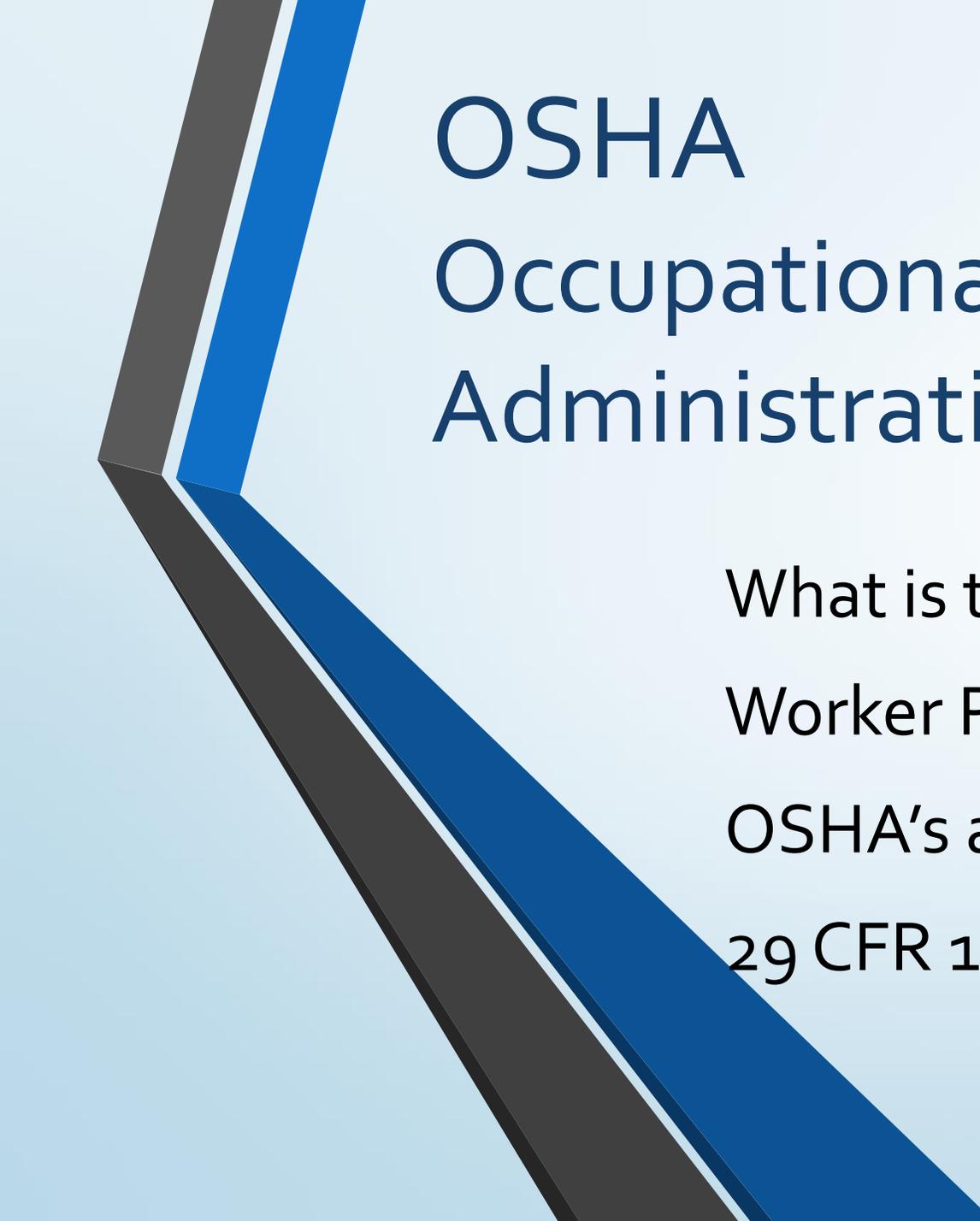
Diseases Related to/or caused by Asbestos Exposure

- Asbestosis
- Mesothelioma
- Lung Cancer



Asbestos Regulations

- OSHA Asbestos Standard: 29 CFR 1926.1101-(Federal)
- EPA NESHAPS: 40 CFR Part 61 Subpart M (Federal)
- State Regulations
- Local Regulations including County/City



OSHA

Occupational Safety Health Administration

What is their #1 concern?

Worker Protection

OSHA's asbestos regulation is?

29 CFR 1926.1101

OSHA Definitions:

- Asbestos Containing Material (ACM): means any material containing more than 1% asbestos
- PACM: means “presumed asbestos containing material”
- Competent Person: One who is capable of identifying existing asbestos hazards and can take corrective measures to eliminate them if needed. Specific training required.

Duties of Building Owners

Before work is begun, determine the presence, location, and quantity of ACM

Notify the following persons

- Prospective contractors that may be exposed
 - Employees working in or adjacent to ACM
 - All employers working within or adjacent to areas containing ACM
- Tenants who occupy areas containing ACM

How do you rebut PACM?

- Have a completed AHERA inspection.
- Collect bulk sample under 40 CFR 763. Three day turn around for results.
- Samples collected by accredited inspector or CIH.
- Analysis of samples by person or lab who participate in a nationally recognized testing program.



OSHA Notification Requirements

None

Exception: States such as Iowa who administer their regulation as a State approved program

EPA NESHAPS

40 CFR Part 61 Subpart M

EPA Regulates:

- Land-Asbestos Disposal Requirements
- Water
- Air-No visible emissions

NESHAP Notification Requirements

- 10 Working days in advance
- Excludes holidays and weekends
- Required for all renovations & demolitions over 260 lineal feet & 160 square feet
- Check State notification requirements for lower regulated reporting limits

Disposal Requirements

- All asbestos-containing waste material shall be deposited as soon as practical by the waste generator
- Select a waste disposal site operated in accordance with the provisions of 61.154
- Maintain “Waste Shipment Records” for 2 years



Project Changes that Affect the Notification

- Footages change by 20% or more
- State date is moved
- End of calendar year notifications expire

Polychlorinated Biphenyls (PCB's)

- PCB's manufactured and processed from 1929-1977
- Toxic Substances Control Act banned the manufacturing, processing, distribution, and use of PCBs, as well as regulating the PCB disposal and markings
- Disposal-All coating waste must be sampled and tested for PCB's. Waste that is ≥ 50 ppm must be properly disposed of in approved landfill



Testing of PCB's

- Collect approximately one baby food jar of material
- Send to approved testing lab for PCB's analysis
- Results take 5-10 days depending on time of year

Lead Base Paint

What is it?

- **Pure lead (Pb) is a heavy metal**
- **At room temperature and pressure and is a basic chemical element**
- **Ban for residential use (1978) but still used in Industrial applications**

Lead Paint

Defined as paint containing more than:

- 0.5% lead by weight
- 1 mg/cm²
- 5000 ppm



Regulatory Agencies

- OSHA-Occupational Safety and Health
- EPA-Environmental Protection Agency

OSHA

Permissible Exposure Limit (PEL)

- The permissible exposure limit, or PEL sets the maximum worker exposure to lead
- No employee may be exposed to lead at airborne concentrations greater than $50\mu\text{g}/\text{m}^3$ averaged over an 8-hour period

OSHA Assessment Required

- Where lead containing coatings or paint are present
- Manual demolition of structure (drywall) manual scraping, sanding, and use of heat gun where lead coatings are present
- Power tool cleaning
- Lead burning
- Abrasive blasting, rivet busting, or welding, cutting, or burning on any structure where lead coatings are present

EPA Lead Disposal

- All lead waste streams must be tested utilizing a Toxicity Characteristic Leaching Procedure (TCLP)
- Regulated limit is 5 ppm
- If greater than 5 ppm, all waste must go to a hazardous waste landfill