

# ASBESTOS IS 100% SAFE! RIGHT?

ALAN LLOYD, CIH, CSP



PARTNERS FOR WHAT'S POSSIBLE

[www.pennoni.com](http://www.pennoni.com)

















USEPA Certified Asbestos Building Inspector  
USEPA Certified Asbestos Management Planner  
USEPA Certified Asbestos Project Designer  
Commonwealth of Pennsylvania Asbestos Inspector  
City of Philadelphia Asbestos Investigator  
City of Philadelphia Asbestos Project Inspector  
State of Florida Licensed Asbestos Consultant  
New York State Asbestos Consultant  
State of Delaware Project Monitor  
New Jersey Asbestos Safety Technician  
Commonwealth of Virginia Asbestos Building Inspector  
State of Maine Asbestos Building Inspector  
Certified Industrial Hygienist  
Certified Safety Professional  
Environmental Sustainability Partner  
40-Hour Hazwopper Certified

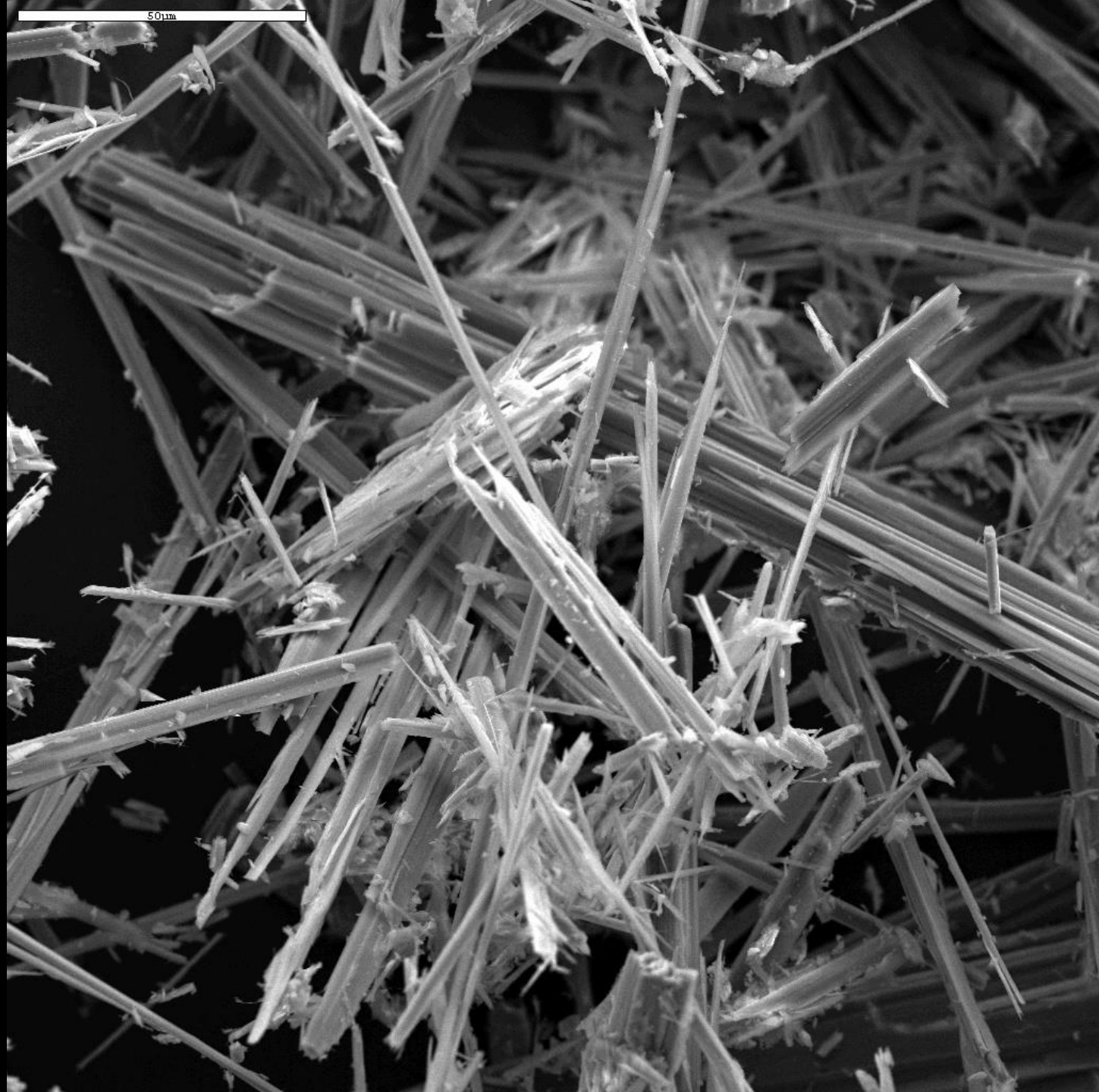
WHAT IS ASBESTOS?





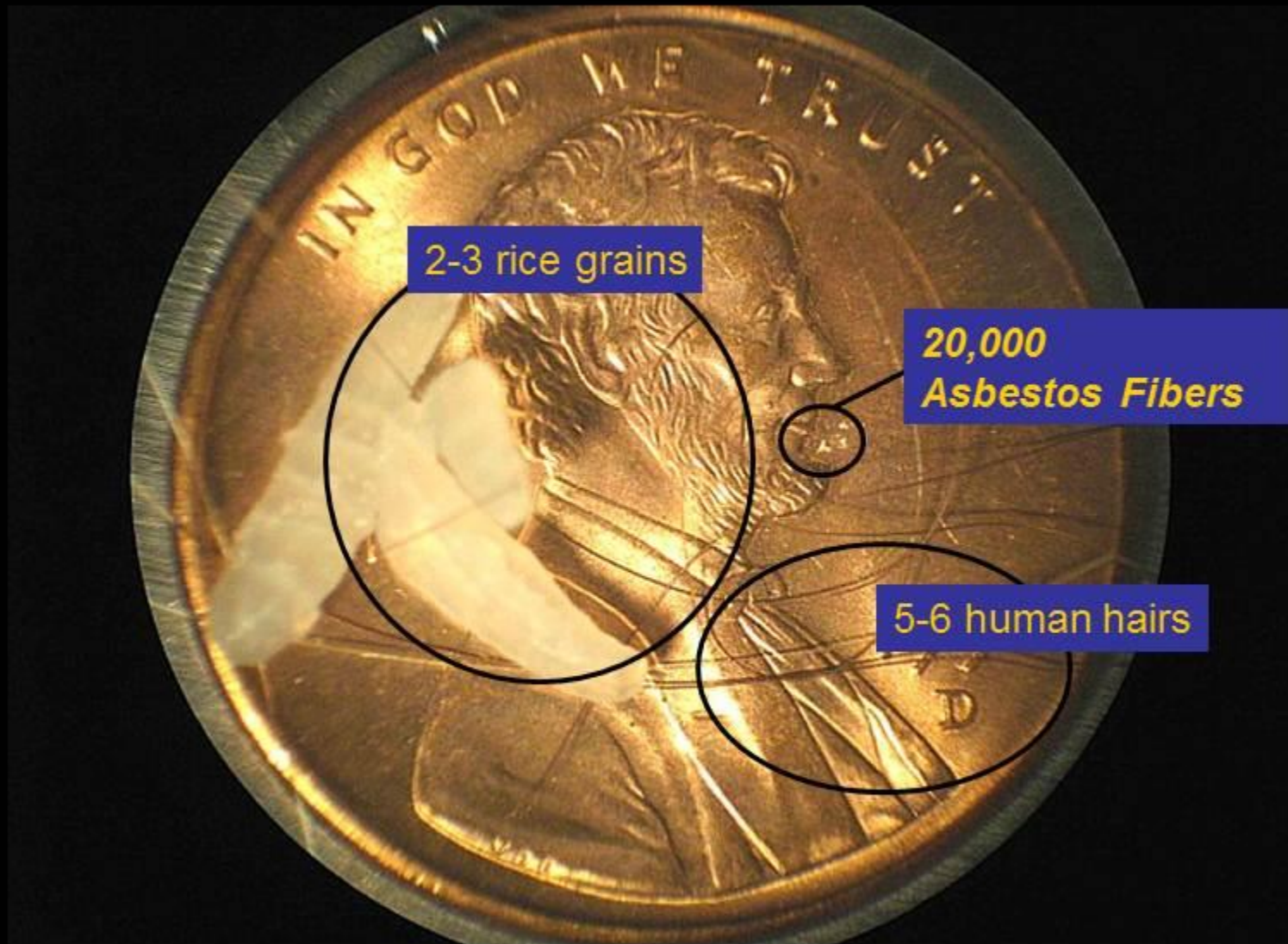














# How small is asbestos?

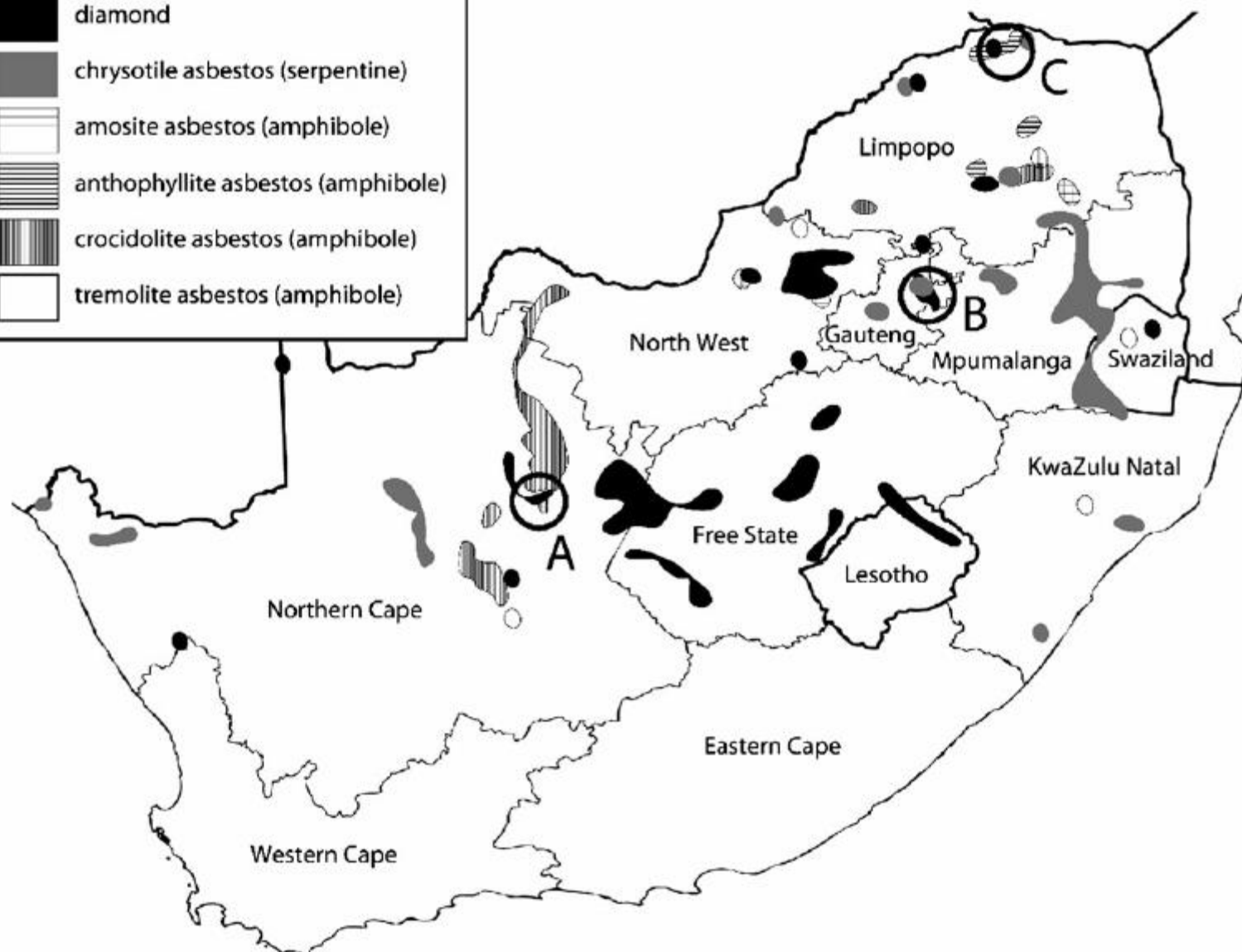






### Mineral deposits:

-  diamond
-  chrysotile asbestos (serpentine)
-  amosite asbestos (amphibole)
-  anthophyllite asbestos (amphibole)
-  crocidolite asbestos (amphibole)
-  tremolite asbestos (amphibole)







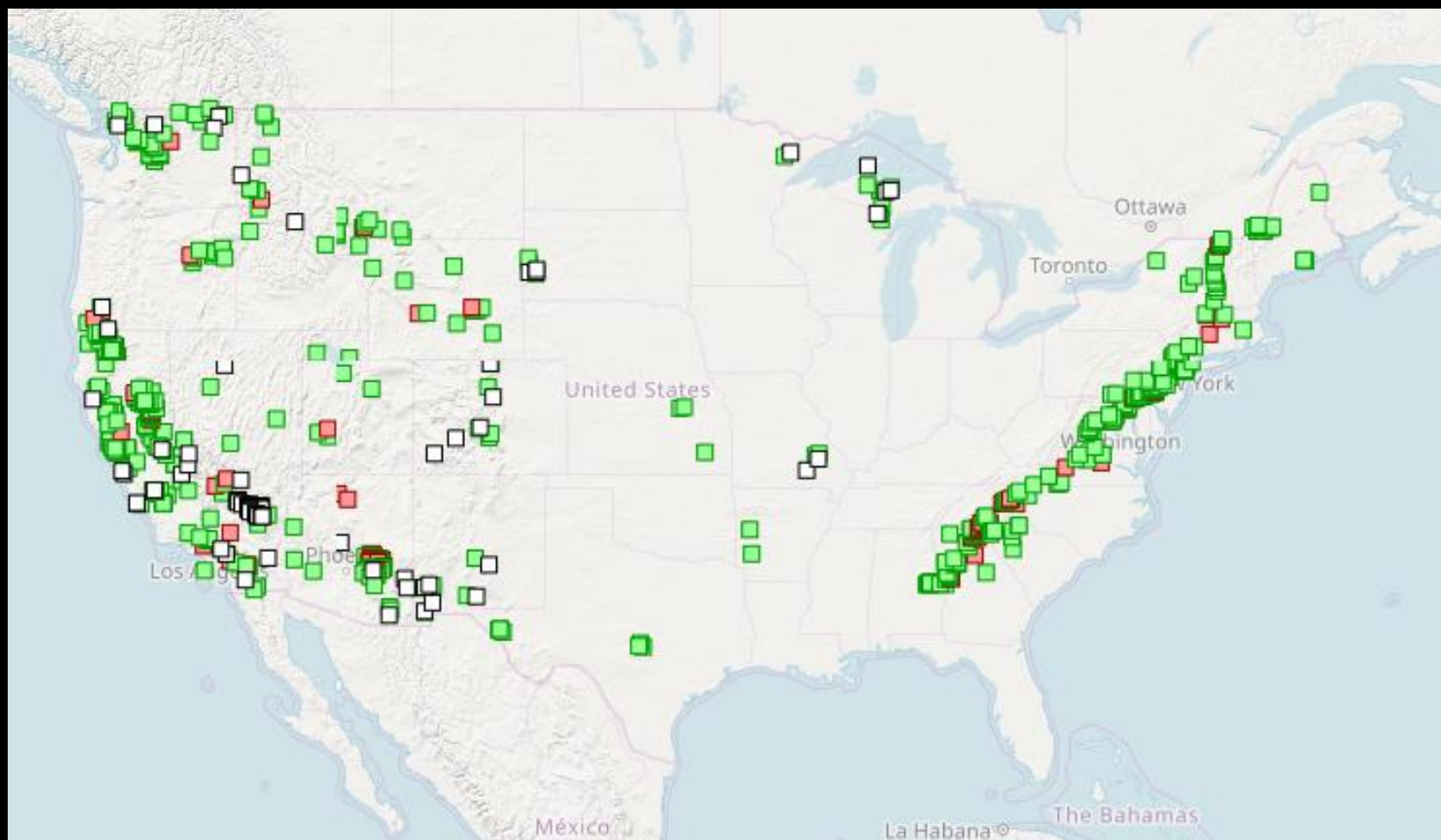


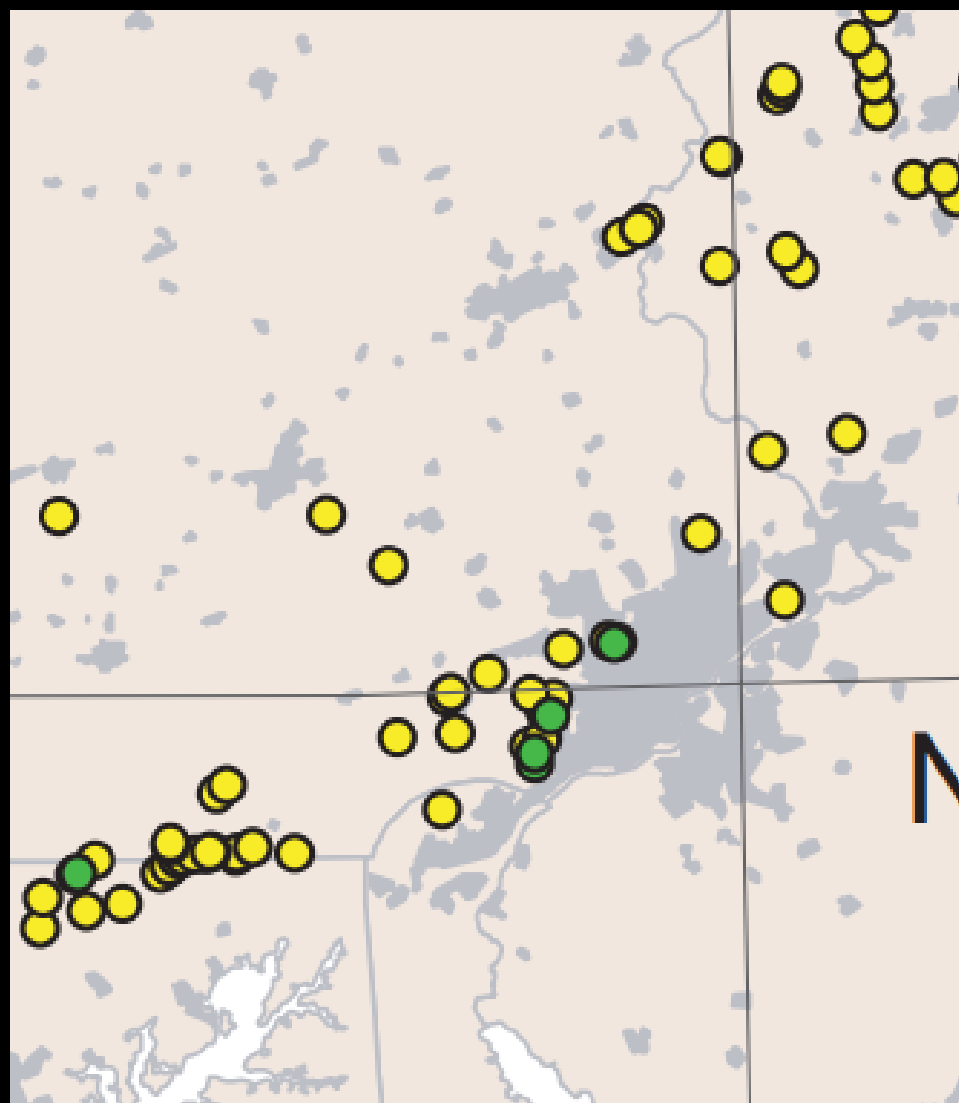
















HOW IS ABESTOS USED?























**H.W. JOHNS'**

**ASBESTOS**

**ROOF,  
RAILROAD AND SEASIDE  
PAINTS.**

SLATE.

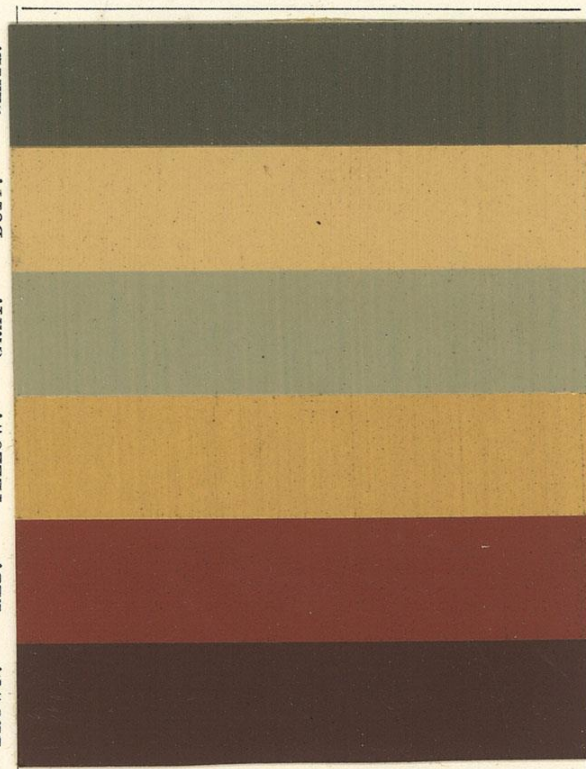
BUFF.

GRAY.

YELLOW.

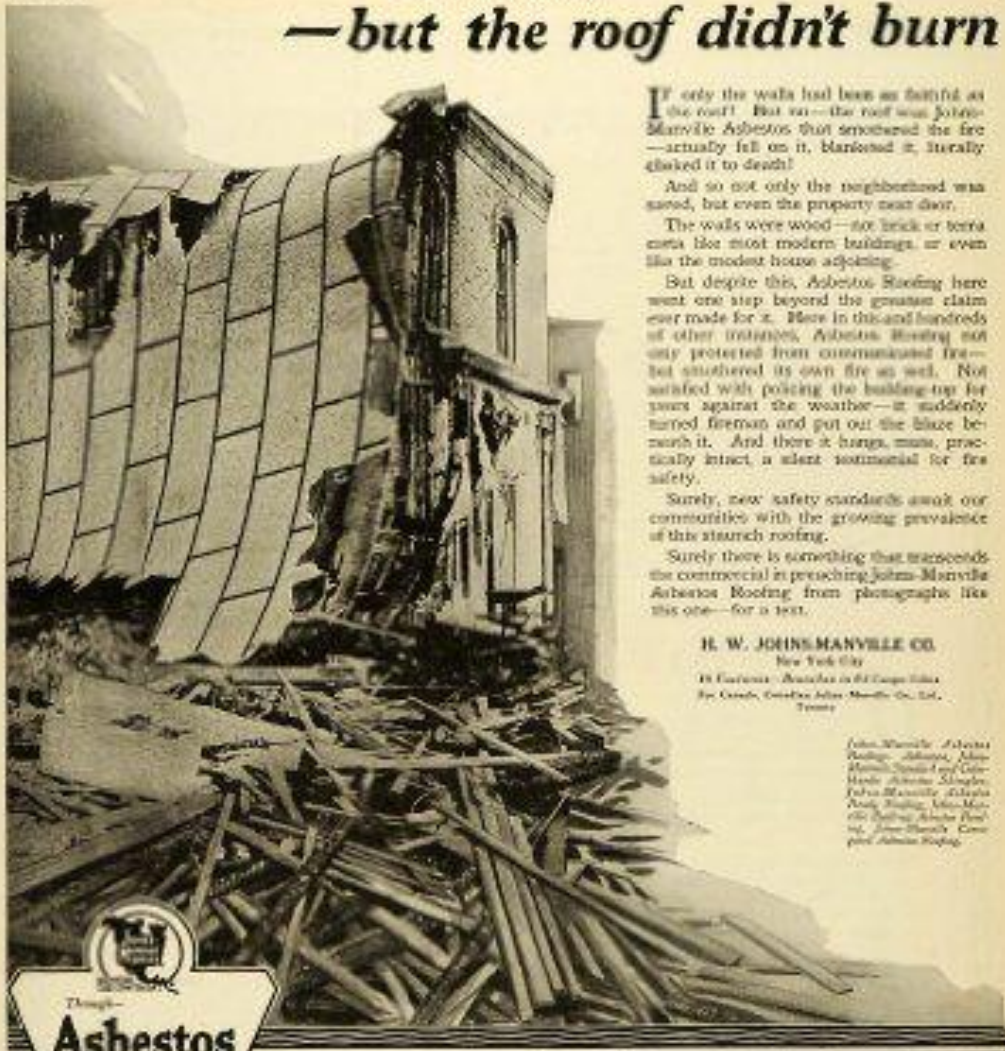
RED.

BROWN.





## —but the roof didn't burn



If only the walls had been as faithful as the roof! But no—the roof was Johns-Manville Asbestos that smothered the fire—actually fell on it, blanketed it, literally choked it to death!

And so not only the neighborhood was saved, but even the property next door.

The walls were wood—not brick or terra cotta like most modern buildings, or even like the modest house adjoining.

But despite this, Asbestos Roofing here went one step beyond the genuine claim ever made for it. Here in this and hundreds of other instances, Asbestos Roofing not only protected from communicated fire—but smothered its own fire as well. Not satisfied with posing the building top for years against the weather—it suddenly turned fireman and put out the blaze beneath it. And there it hangs, mummified, practically intact, a silent testimonial for fire safety.

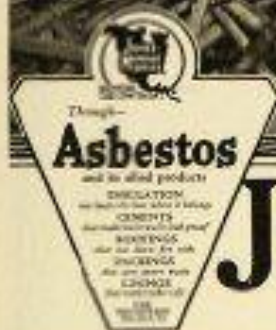
Surely, new safety standards await our communities with the growing prevalence of this sturchee roofing.

Surely there is something that transcends the commercial in preaching Johns-Manville Asbestos Roofing from photographs like this one—for a test.

**H. W. JOHNS-MANVILLE CO.**  
New York City

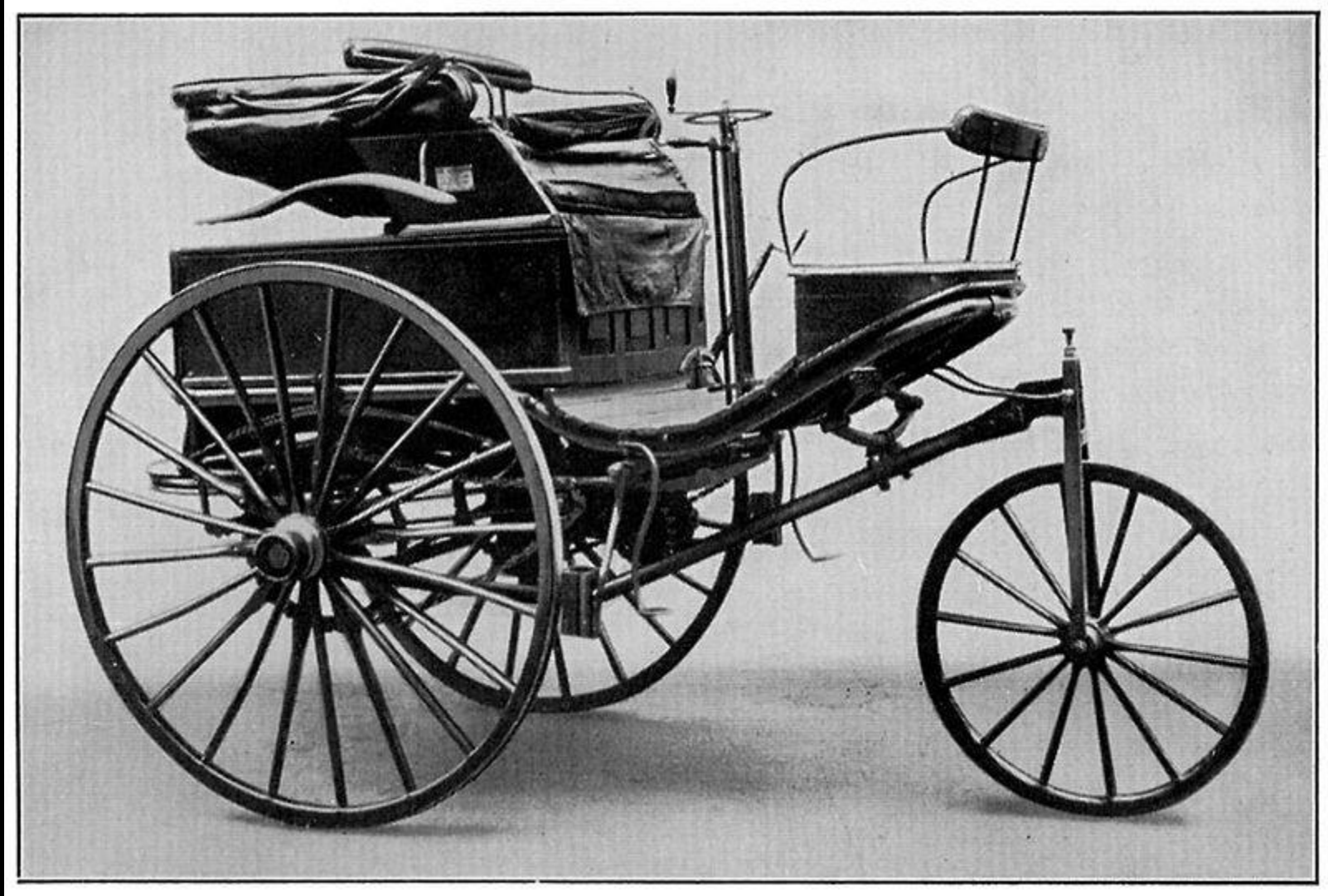
Its European Branches in 14 European Cities.  
For Canada, Canadian Johns-Manville Co., Ltd.,  
Toronto.

*Johns-Manville Asbestos  
Roofing—Johnson, John  
Manville, Joseph L. and John  
Herd, Asbestos Slings,  
Johns-Manville Asbestos  
Rope, Roofing, John Man-  
ville Building, Asbestos Roof-  
ing, John Manville Com-  
pact Asbestos Roofing.*



# JOHNS-MANVILLE

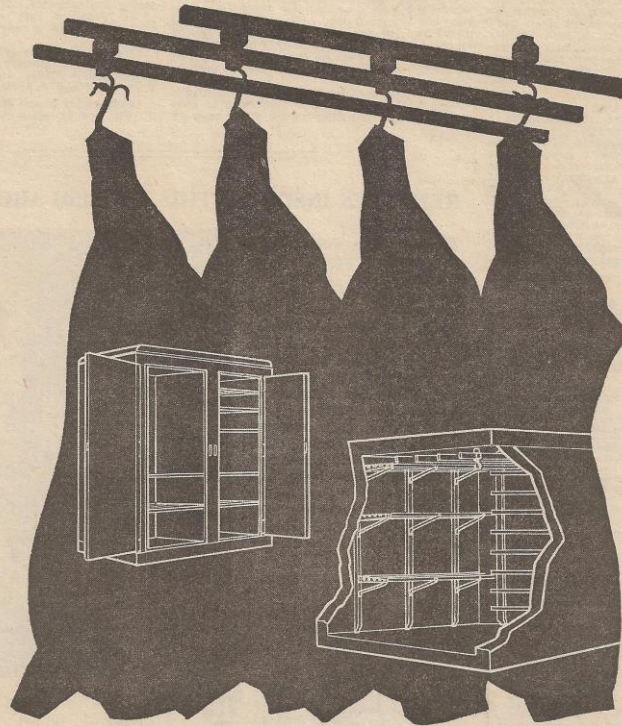
## Serves in Conservation





# ASBESTOS-CEMENT

*solves this problem*



## *The Nation's Need for* REFRIGERATOR LININGS

This is one of a series of advertisements designed to show how Asbestos-cement can help to solve an almost infinitely varied range of problems. At present, war-time needs have a monopoly of its service, but when peace comes the manufacturers look forward to extending further its usefulness.

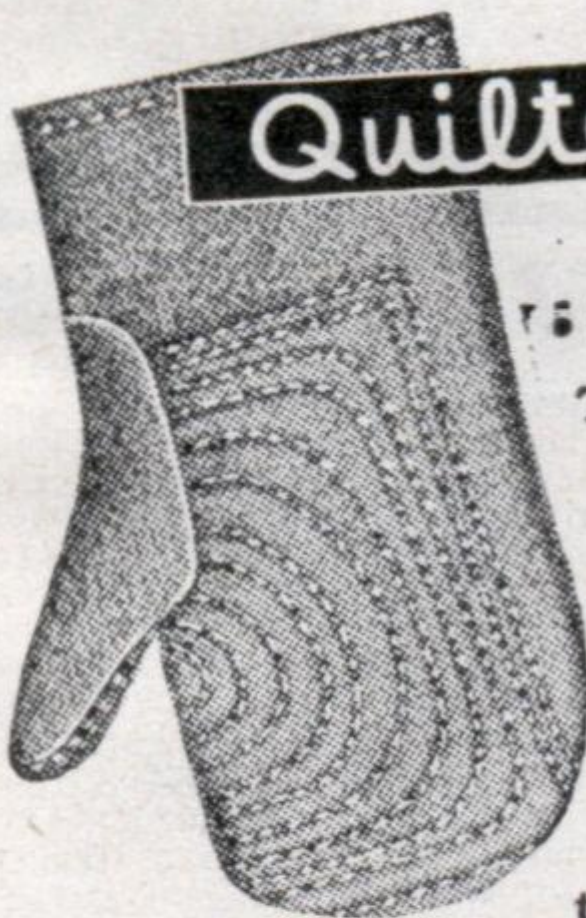


**TURNERS  
ASBESTOS  
CEMENT  
CO., LTD.**  
TRAFFORD PARK  
MANCHESTER 17



### "TURNALL"

Stipple-Glaze Sheets for  
Refrigerator and Cold  
Storage Chamber Lining



**Quilted**

## ASBESTOS MITTS

**... they last twice as long**

These asbestos mitts for handling hot metal molds and shapes are reversible to fit either hand. Both sides quilted, won't shred or fray on rough, jagged material. Double wear, double life. Wool lined. All seams double stitched. The answer to troublesome problems. \$2.20 a pair. Discounts for quantities. One of 4300 production-speeding, time-saving safety

gloves, aprons, sleeves, spats, etc. Write for *Free* catalog.

**INDUSTRIAL GLOVES CO.**

**6547 Garfield Blvd., Danville, Ill.**

**(In Canada: Safety Supply Co., Toronto)**





# ARE YOU GOING FLOOR-CARE CRAZY?

**Get smart...get Flor-Ever**

**Dirt comes right off  
Flor-Ever, America's  
leading vinyl floor,  
—so Easy—so Fast**

Arise, floor-cleaning slaves. Forget flooring aggravation—and add wonderful, gleaming color and smartness to your rooms, too. Discover Flor-Ever.

Flor-Ever is the micro-smooth vinyl floor that is cleaned so much easier. Flor-Ever is the vinyl floor you wax less because it's vinyl-bright. Flor-Ever is the glowing vinyl floor never harmed by ordinary kitchen mess.

And, Flor-Ever is setting new standards for wear.

Flor-Ever's vinyl-rich colors are today's decorator news. They're unbelievably beautiful. Furthermore, Flor-Ever in one of its many forms, is perfect for every place—over wood or concrete—basement to attic (or store, office, institution).

See Flor-Ever's galaxy of colors and styles today!



*By the Yard—  
By the Tile*



## Flor-Ever®

### VINYL

**FLOORING and COUNTER TOP**

for...

basement to attic...

store or office...

everywhere and every purpose



#### SETS NEW WEAR STANDARDS

Flor-Ever, in each price and purpose range, outwears equal non-vinyl floor coverings of even greater thickness. On this grinding machine Flor-Ever Standard has withstood as much abrasion as floorings 50% thicker.



#### NO KITCHEN MESS CAN HARM

No vegetable, animal or mineral fat, oil or grease ordinarily used in kitchens can harm any Flor-Ever—neither the Standard, the Vinyltone, Vinyl Asbestos, nor Universal.



#### VINYL LUSTER IS BUILT IN

Flor-Ever, in any of its forms, is naturally lustrous; it's vinyl! The power-polished surface has a vinyl sparkle that lasts longer and light buffing with paste or liquid wax speedily increases its gloss.

**Sloane** Delaware, Trenton, N.J...Flor-Ever vinyl...linoleum...cork...enameled floorings

# PIPE COVERING.



Fireproof Non-conducting Coverings for Steam Pipes, Boilers, and all hot surfaces. Made in sections three feet long. Easy to apply. Asbestos Materials—Fiber, Millboard Packing, and Cement.

**CHALMERS-SPENCE CO.**  
419-421 Eighth St., New York.



The best cigarette NEWS for over 40 years

# **..THE FILTER TIP**

## **that holds throat irritants in check**



**What the  
du MAURIER  
SELECTIVE FILTER TIP  
does:**

*It provides the common-sense method of preventing smoker's throat because it effectively retains irritants.*

*It stops particles of tobacco getting into the mouth.*

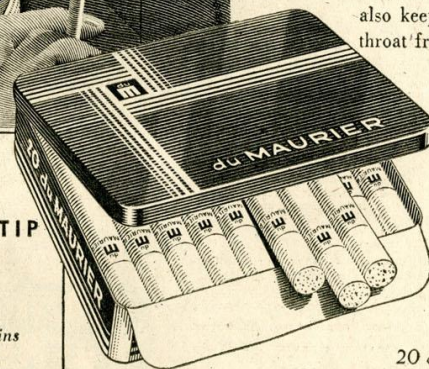
*It guards physical fitness.*

*It protects lips and teeth from stain.*

*It avoids burning the tongue.*

*It brings out the flavor and makes the smoke delightfully sweet and cool.*

*It gives a cleaner, healthier and more satisfying smoke.*



### **SMOKE CLEAN SMOKE**

ALL REPUTABLE MANUFACTURERS remove impurities from the cut tobacco leaf—but irritants developed when the tobacco burns can be removed *only from the smoke itself*. This the du Maurier Filter Tip does. Irritants are retained by the cellulose between the crepe paper which screens the smoke selectively, letting pass for your enjoyment the fragrance, aroma and flavor of the costliest American and princely Oriental leaf, specially blended.

By cleansing the smoke, the du Maurier Filter Tip not only enhances flavor, it also keeps you fit, and protects your throat from irritation.

*Filter-Tipped  
in the  
Scarlet  
Aluminum  
Box*

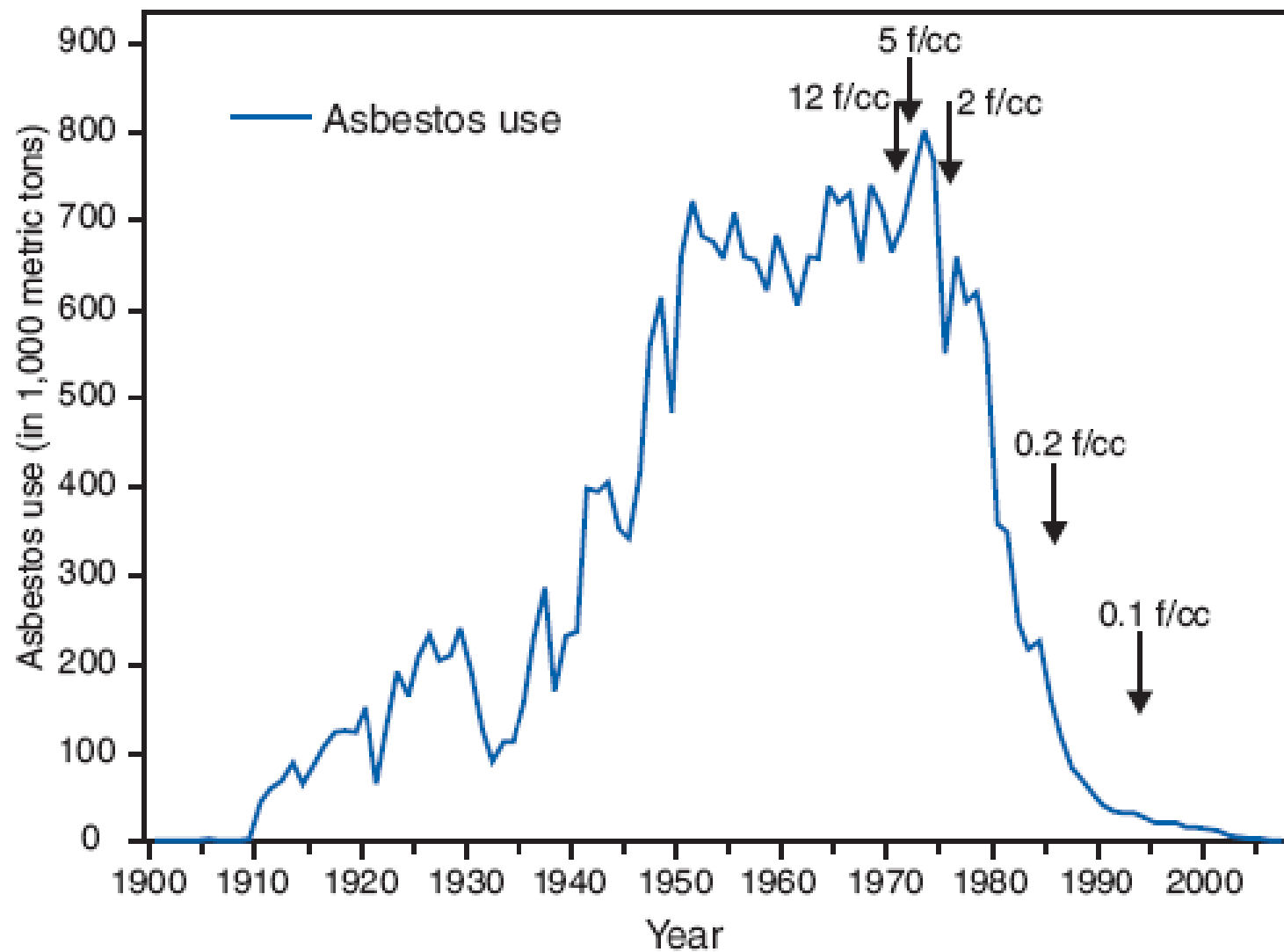
20 cigarettes for 30¢

## **du MAURIER**

**CIGARETTES**

*When only the best will do*

MADE IN U.S.A. BY COLUMBIA TOBACCO CO. INC., NEW YORK













**Plaster**



**Drywall**



















## **Prohibited Products**

- Corrugated paper
- Commercial paper
- Flooring felt
- Rollboard
- Specialty paper
- New uses of asbestos



## Authorized Products

- Corrugated asbestos cement sheet
- Flat asbestos cement sheet
- Vinyl asbestos floor tile**
- Asbestos cement pipes
- Asbestos cement shingles
- Friction materials
- Brake linings
- Clutch facing
- Disc brake pads
- Asbestos clothing
- Automatic transmission components
- Roofing felt**
- Roof coating**
- Non-roof coatings
- Millboard
- Pipeline wrap
- Acetylene cylinder filler
- Asbestos diaphragms
- High grade electrical paper
- Packings
- Sealant tape
- Brake blocks
- Missile liners
- Arc shutes
- Battery separators
- Reinforced plastic
- Textile products
- Gaskets











Used in over 3,000  
products.

IS ASBESTOS 100% SAFE?



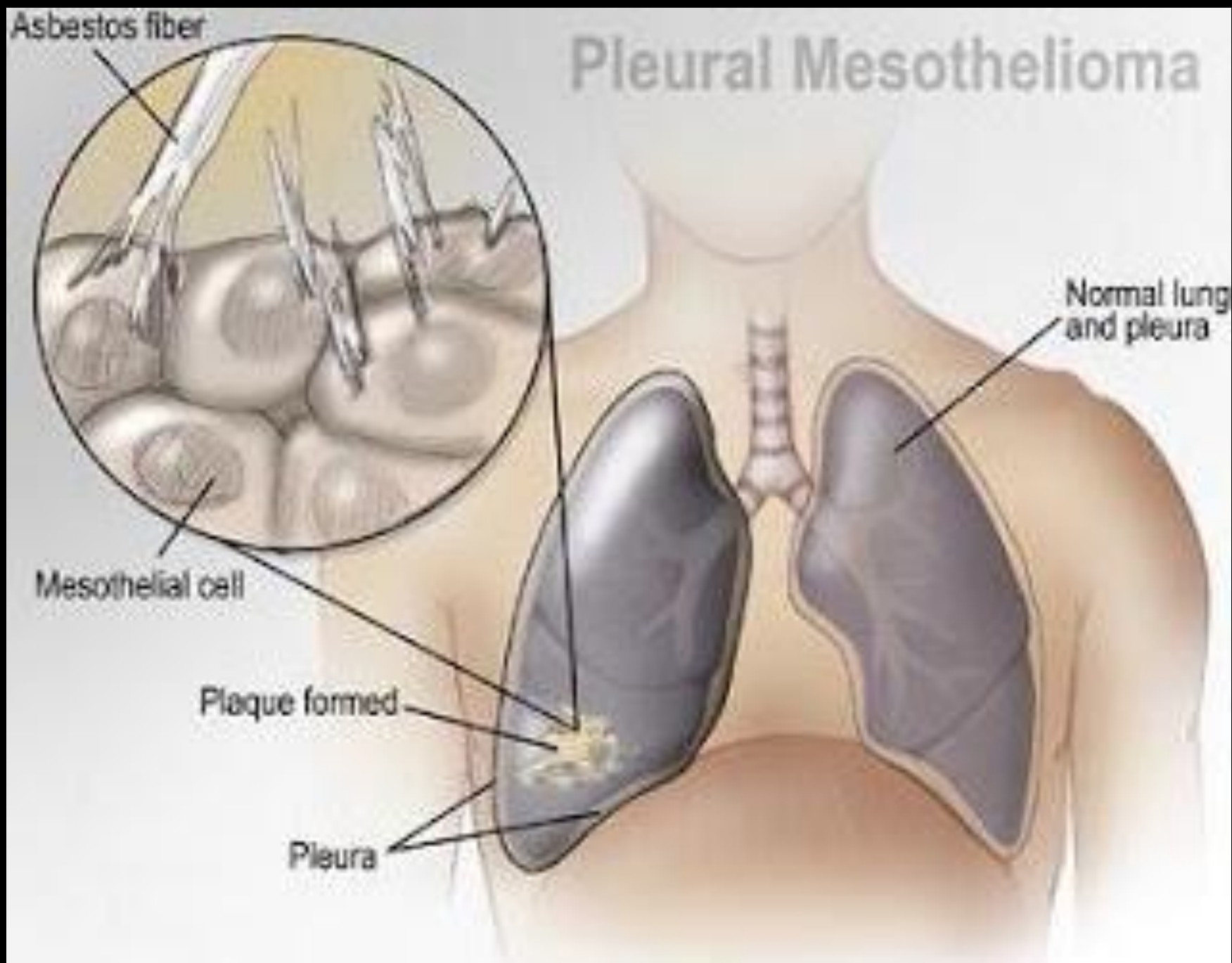




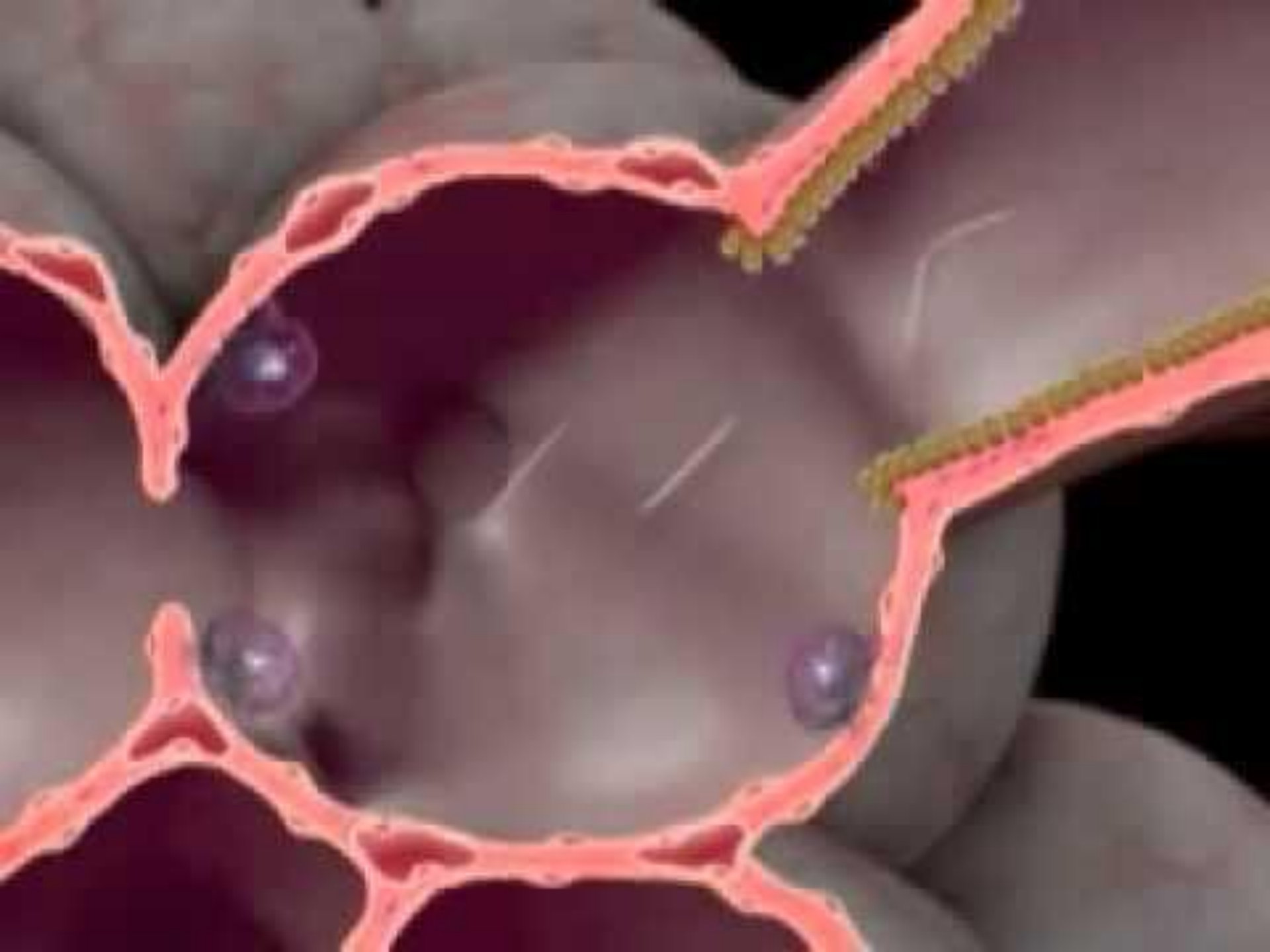




# Pleural Mesothelioma









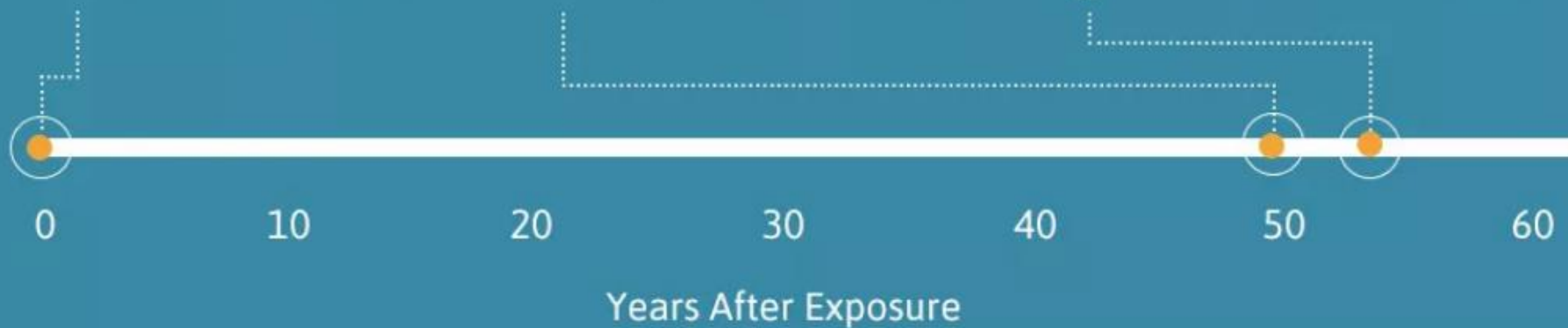
Exposure  
to Asbestos Occurs



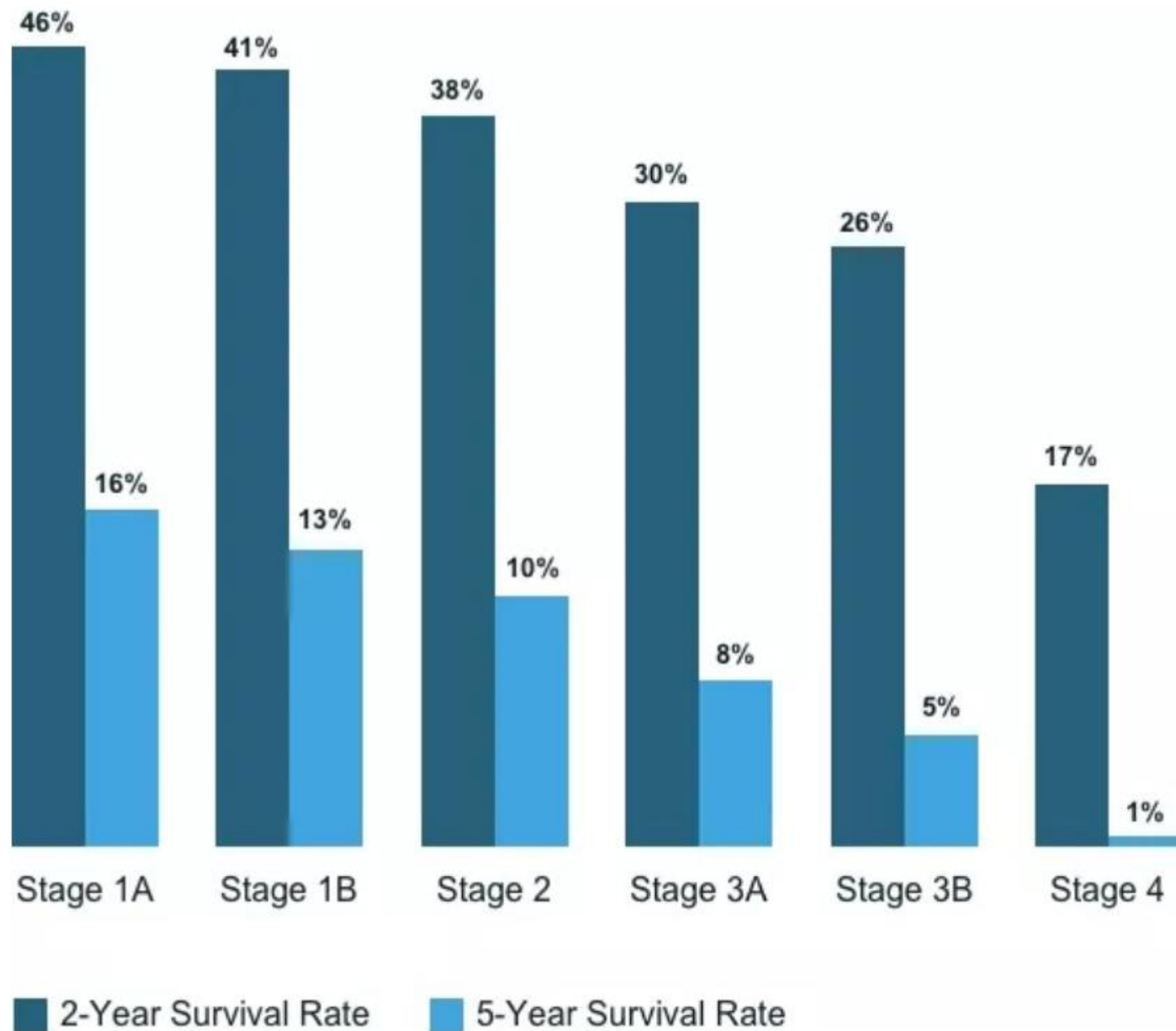
47.9 Years  
Mean Latency for Men



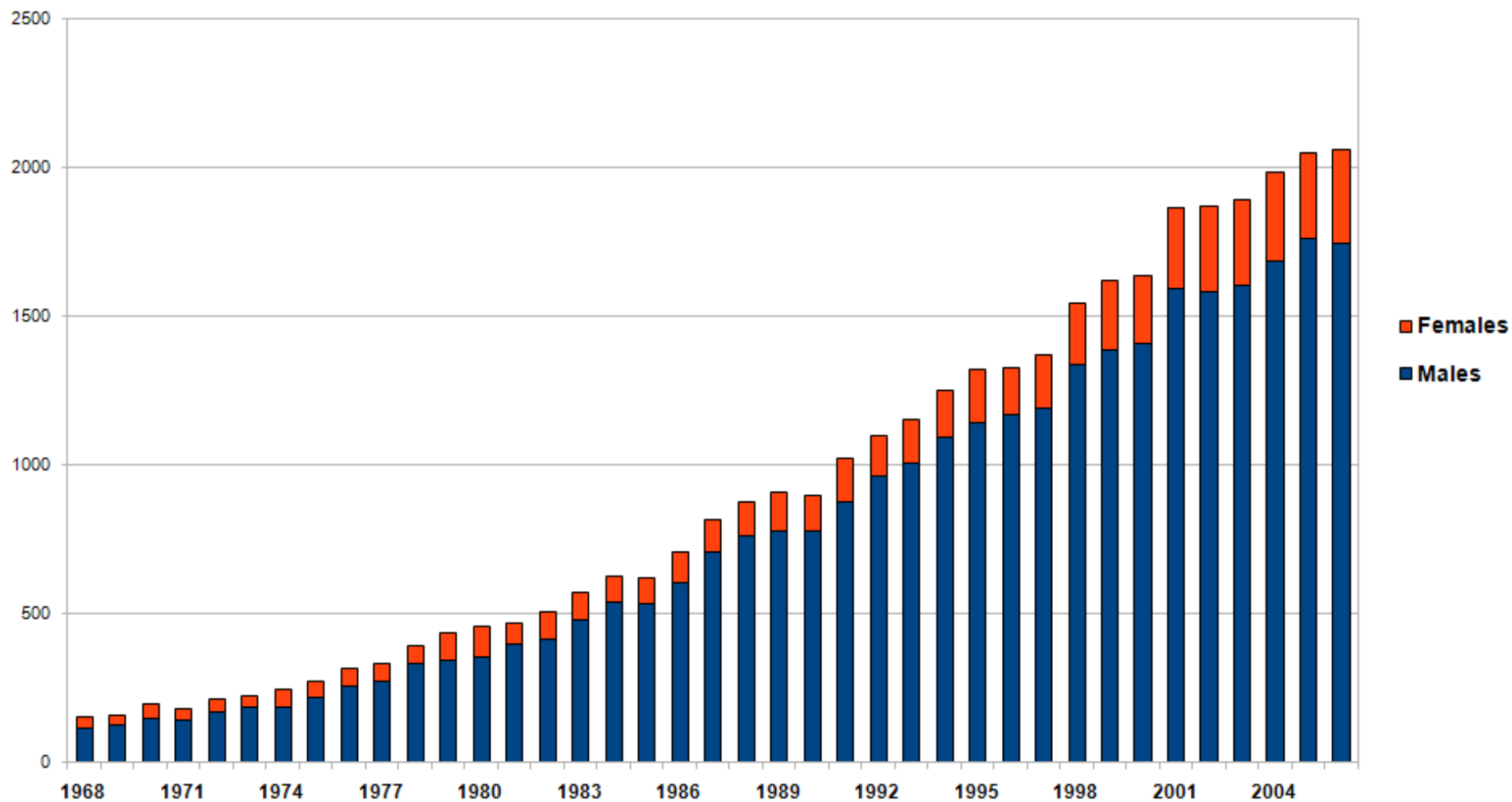
53.3 Years  
Mean Latency for Women



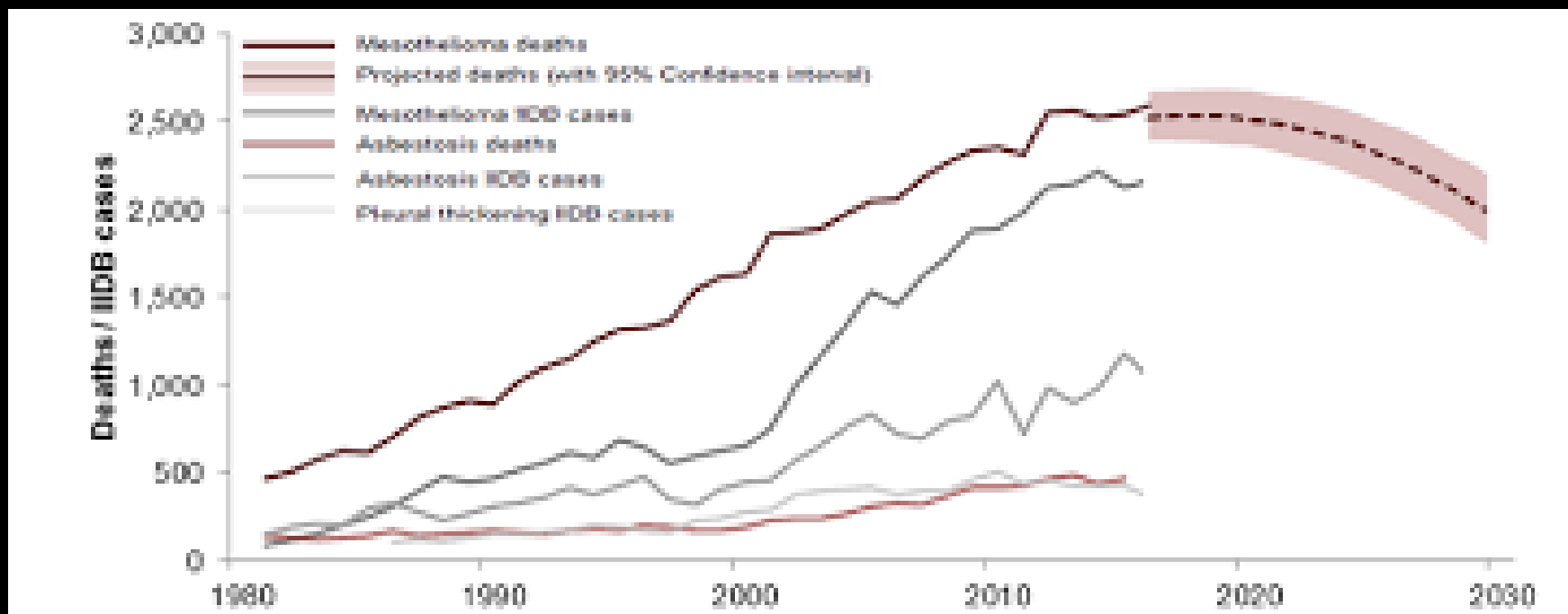




Death certificates mentioning mesothelioma, 1968-2006







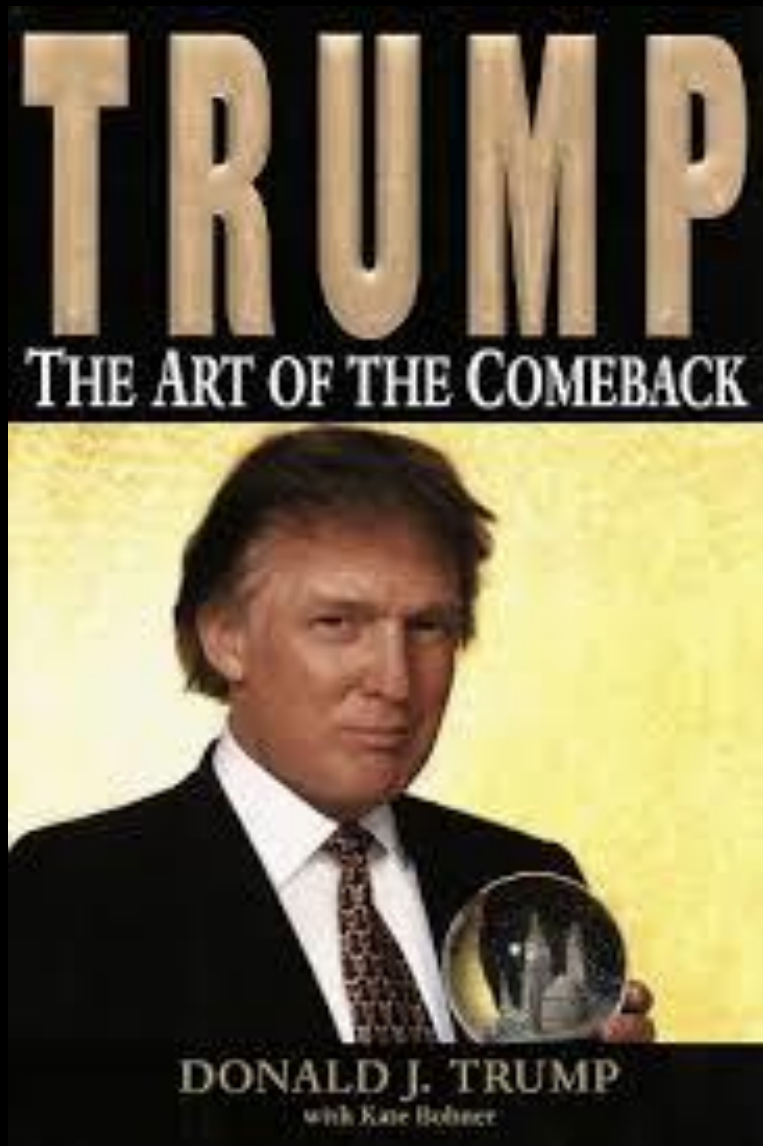
— ACCORDING TO —  
**WORLD HEALTH ORGANIZATION**

**MORE  
THAN** **107,000**  
**PEOPLE DIE EACH YEAR**

..... FROM .....  
**ASBESTOS-RELATED**  
**LUNG CANCER, MESOTHELIOMA**  
**AND ASBESTOSIS RESULTING FROM**  
**OCCUPATIONAL EXPOSURE**







In his 1997 book, “The Art of the Comeback,” President Donald Trump claimed asbestos is “100 percent safe, once applied.”

IS ABESTOS BANNED?

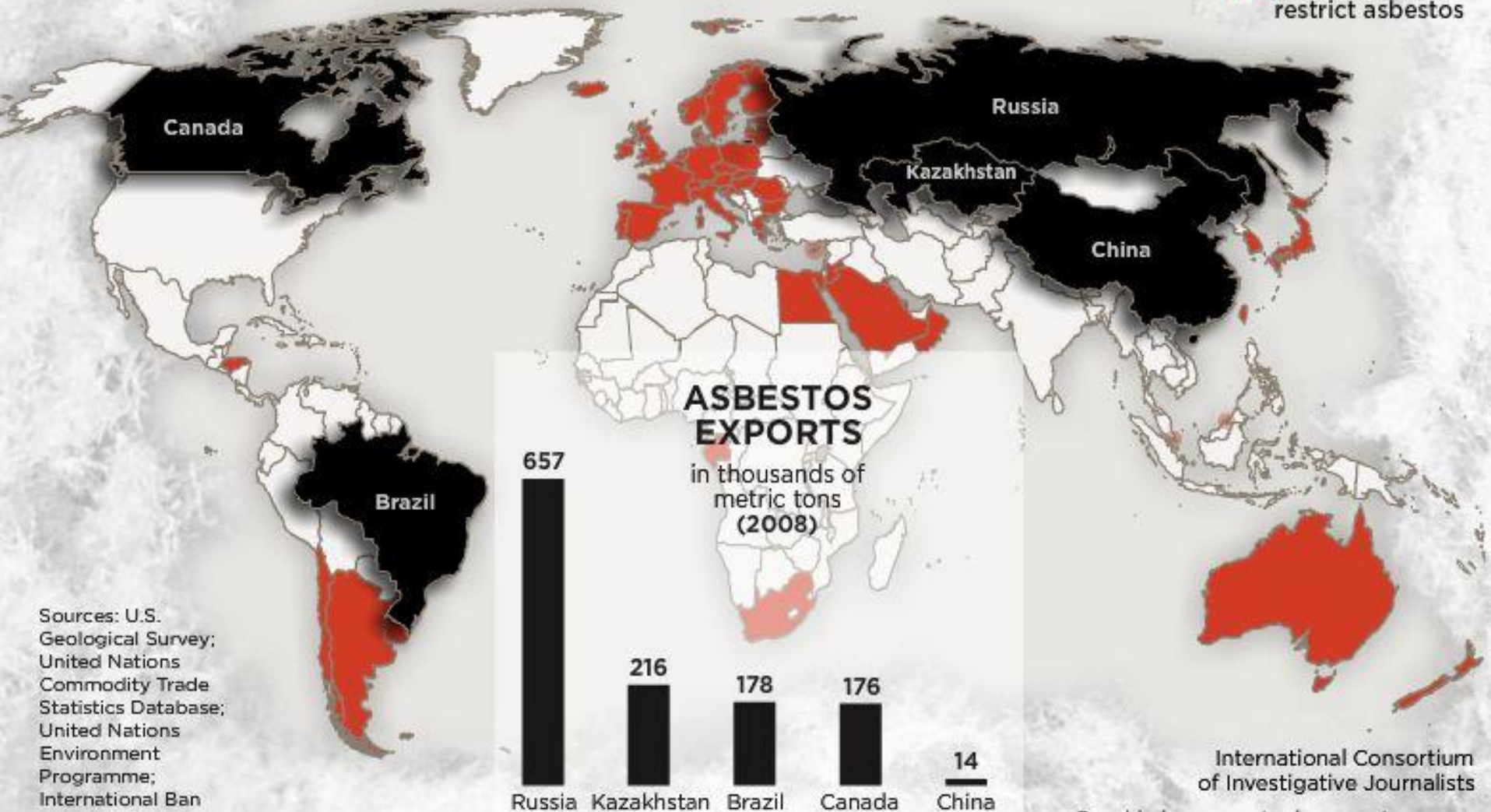


## Countries with Bans on Asbestos



## Top 5 Asbestos Exporters

- Top 5 asbestos exporters
- Countries that ban or severely restrict asbestos



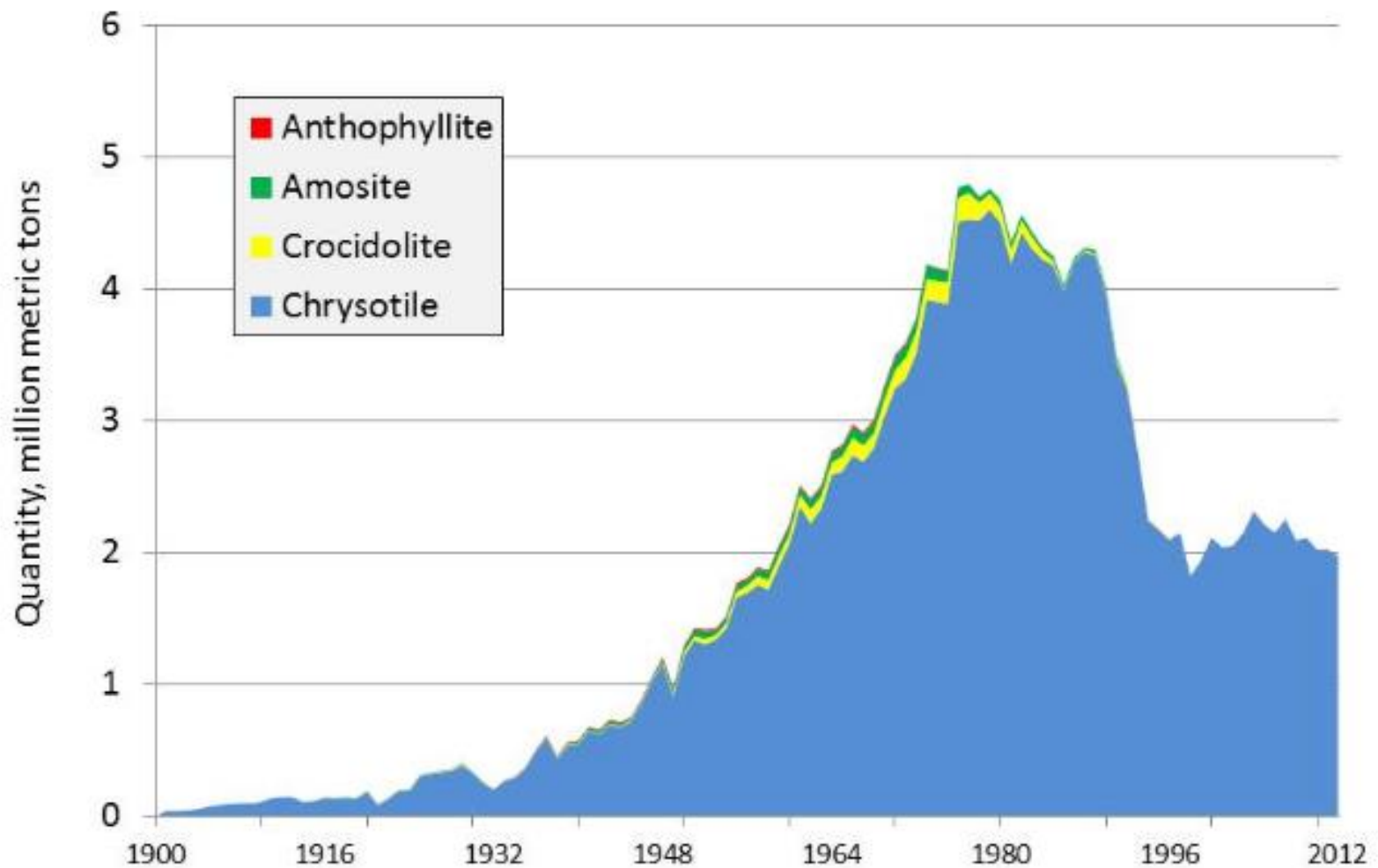
Sources: U.S. Geological Survey; United Nations Commodity Trade Statistics Database; United Nations Environment Programme; International Ban Asbestos Secretariat

International Consortium of Investigative Journalists

Graphic by [www.stephenrouttree.com](http://www.stephenrouttree.com)



## World Production of Asbestos, by Type



**Clean Air Act of 1970** classified asbestos as a hazardous air pollutant and gave the EPA the power to regulate the use and disposal of asbestos. Spray-applied asbestos products were banned with the passage of this act.

In 1976, the **Toxic Substances Control Act (TSCA)** provided the EPA the authority to place restrictions on asbestos.

The **Asbestos Hazard Emergency Response Act of 1986 (AHERA)** made the EPA establish standards for inspecting and removing [asbestos in schools](#). In **1990**, the EPA expanded the certification requirements to apply to commercial buildings.

In July 1989, the EPA issued the **Asbestos Ban and Phase-Out Rule (ABPR)**, which planned to impose a full ban on the manufacturing, importation, processing and sale of asbestos-containing products. ... never happened...overturned in 1991 and could only be applied to a few products...

**The EPA determined that six categories of asbestos-containing products fit that classification, including:**

- Flooring felt
- Rollboard
- Commercial paper
- Corrugated paper
- Specialty paper
- New uses of asbestos

Only spray-applied asbestos and these six products are banned in the U.S. All other uses of asbestos, such as automotive brake pads and gaskets, roofing products, floor tiles, joint compound, etc are legal.



**1994** – OSHA Asbestos in Construction Standard

**2016** - Frank R. Lautenberg Chemical Safety for the 21st Century Act

**April 5, 2019** – Significant New Use Rule. Becomes effective June 5, 2019

FEDERAL  
DEMO/RENO  
REQUIREMENTS

# Federal Asbestos Regulations

*Common to day-to-day asbestos control work*

*Always check for  
State/Local program  
requirements!*

EPA

OSHA

## NESHAP

40 CFR Part 61  
Subpart M

Demolition,  
renovation and  
waste issues

Inspections prior to  
disruption

Notifications

Required removal

Waste packaging &  
approved landfills

Waste shipment  
records

## AHERA

40 CFR Part 763

K-12 schools, public and  
private

Inspections &  
Assessments

Management Plans

Communication

Training requirements

Abatement final clearance  
issues

## Worker Protection Rule

40 CFR Part 763 Subpart G

OSHA protection for those  
in State/Municipal  
employment

## General Industry

29 CFR 1910.1001

Permissible exposure  
limits and exposure  
assessments

Inspection before  
exposures

Communication

Worker protection;  
Respiratory protection  
must meet  
29 CFR 1910.134

Training

Mandatory appendices

## Construction

29 CFR 1926.1101

Permissible exposure  
limits and exposure  
assessments

Inspection before  
exposures

Communication

Worker protection;  
Respiratory protection  
must meet  
29 CFR 1910.134

Classes of asbestos  
disturbing work (I-IV)

Significant work practice  
requirements

Training

Mandatory appendices



# OSHA

- Covers asbestos exposure to all workers.
- Defines what is asbestos-containing.
- Employer responsibilities.



# OSHA

- MUST presume if not tested.
- Presume vs Assume

*Presumed Asbestos Containing Material* means thermal system insulation and surfacing material found in buildings constructed no later than 1980.



# 1980's



# 1980's



OSHA determined that buildings constructed after January 1981 are less likely to have asbestos-containing materials installed in them, but this is not for certain.

- *LOI*, September 5, 1996

Presume vs Assume

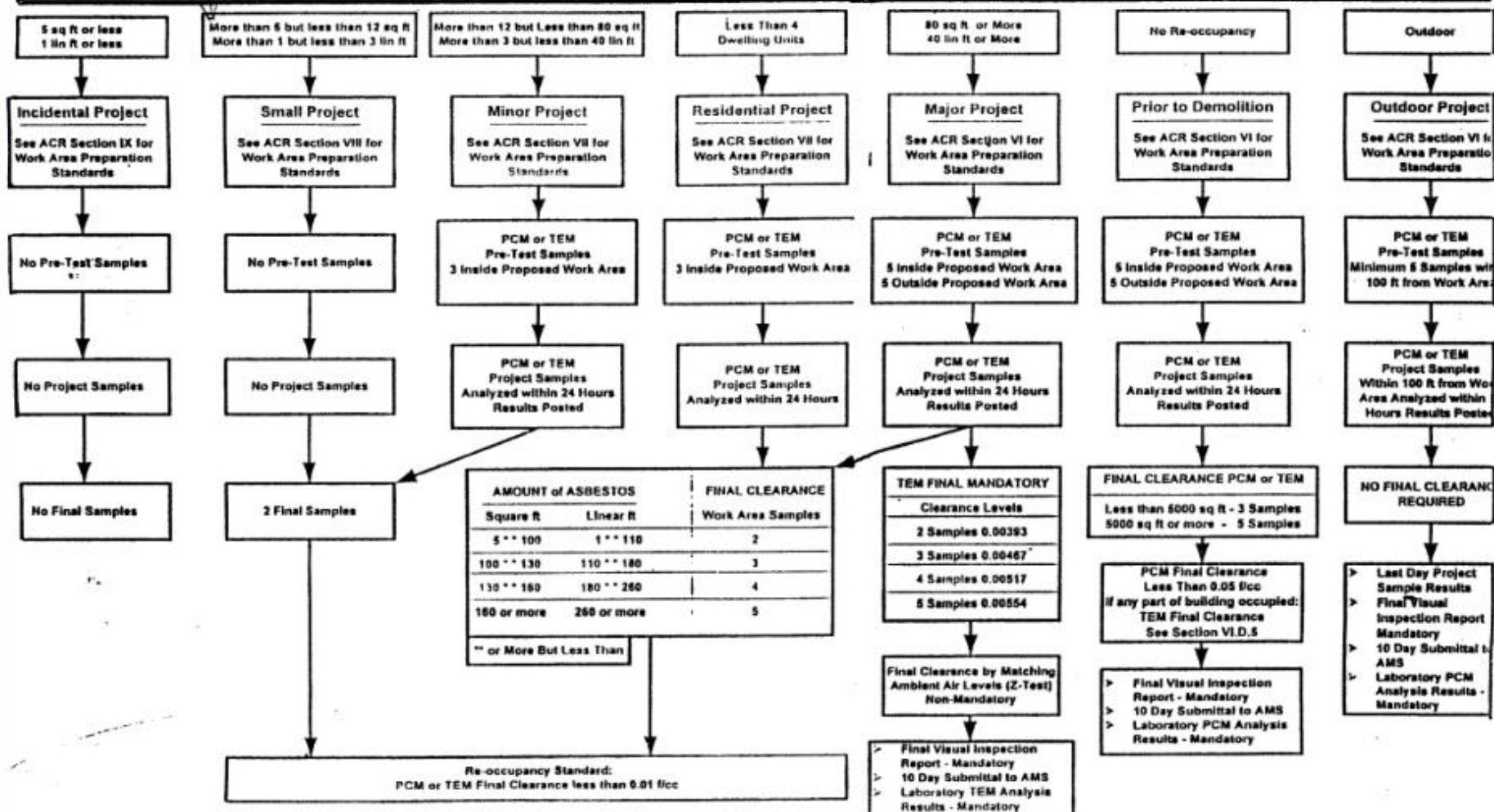


# PENNSYLVANIA REQUIREMENTS?

# CITY OF PHILADELPHIA REQUIREMENTS?

# City of Philadelphia Air Sampling/Project Standards

1/9/2006







City of Philadelphia - Department of Public Health  
Public Health Services - Air Management Services  
Asbestos Control Unit - 321 University Av., 19104

## Asbestos Inspection Report

Office Use Only

Date Received L&I:

Date Received AMS:

Date Inspected:

Inspector #

Name of Building:

Address

Phone #

HOAGIE CITY

2136-38 MARKET ST

(610) 207-1400

Name of Building Owner:

Address

Phone #

STB INVESTMENT CORP

300 W 43RD ST  
SUITE 400  
New York, NY 10036-4406

(212) 277-1100

Name of Licensed Investigator:

License #

Phone #

Kenneth A. Hudron

0321

(609) 637-7141

Name of Certified Lab:

License #

Phone #

Scope of Work: (include all locations)

No Asbestos Found

☐ Could not complete the inspection because the building or a portion of has been declared imminently dangerous (ID) and in danger of collapse.  
INVESTIGATOR MUST BE ON SITE DURING DEMOLITION!

Asbestos Containing Material Present? ☐ Yes (List Below) ☒ No

List Asbestos Containing Material (ACM) located in the planned renovation/demolition area(s). Damaged ACM must be listed and then repaired or removed prior to renovation. You (Investigator) must label all ACM that may be left in the work area. Page 1 of

Location	Description	Type (Code 1)	Amount		Condition (Code 2)	Action (Code 3)
			Square	Linear		

Code 1

FR1 - Friable  
NF1 - Non-Friable, Cat. 1  
NF2 - Non-Friable, Cat. 2

Code 2

DD - Deteriorated or  
Delaminated  
ND - Non-Damaged

Code 3

REM - Removal necessary prior to Demo/Reno  
NRN - No removal necessary, label ACM  
REP - Repair & Label ACM, removal not necessary

I hereby certify that the foregoing statements are true and the information contained in this report is true. This certification is made subject to the penalties set forth in 18 PA. C.S. §4904 relating to unsworn falsification to authorities. Furthermore I certify that the inspection, sampling, and labeling requirements of section X of the Asbestos Control Regulation (ACR) have been met. The building owner has been notified of the ACR requirements and given a copy of this report. If the inspection has revealed ACM which will be disturbed by the proposed work or if it has revealed ACM in bad condition, the building owner has been notified to remove or repair the ACM in accordance with the ACR prior to renovation or deterioration activity.

Signature of Licensed Asbestos Investigator:

Date:

1-28-13

Signature of Building Owner:

BE-HALL

Date:

1/28/13

OF STB INVESTMENTS

# Asbestos in the News

- Philadelphia Schools (\$170 M)
  - Claire's Cosmetics
- Asbestos in Drinking Water
  - J&J Baby Powder Case
- Man Arrested for Dumping Asbestos
- Contractor pleads guilty to mishandling asbestos
- Contractor pleads guilty to improperly removing asbestos
- Asbestos endangering workers on jobsite

Question  
everything

