

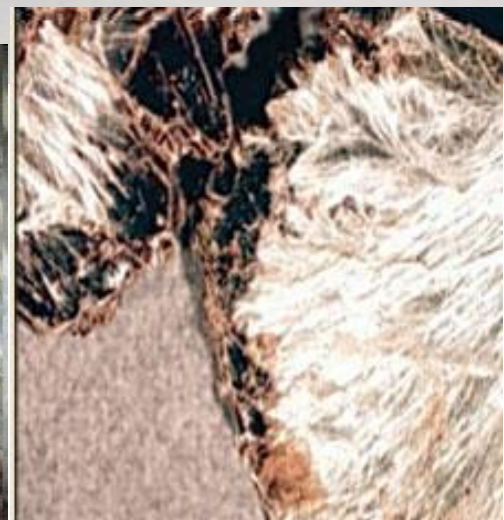
Health Hazards Control Unit (HHCU)

**NC Department of Health
and Human Services**

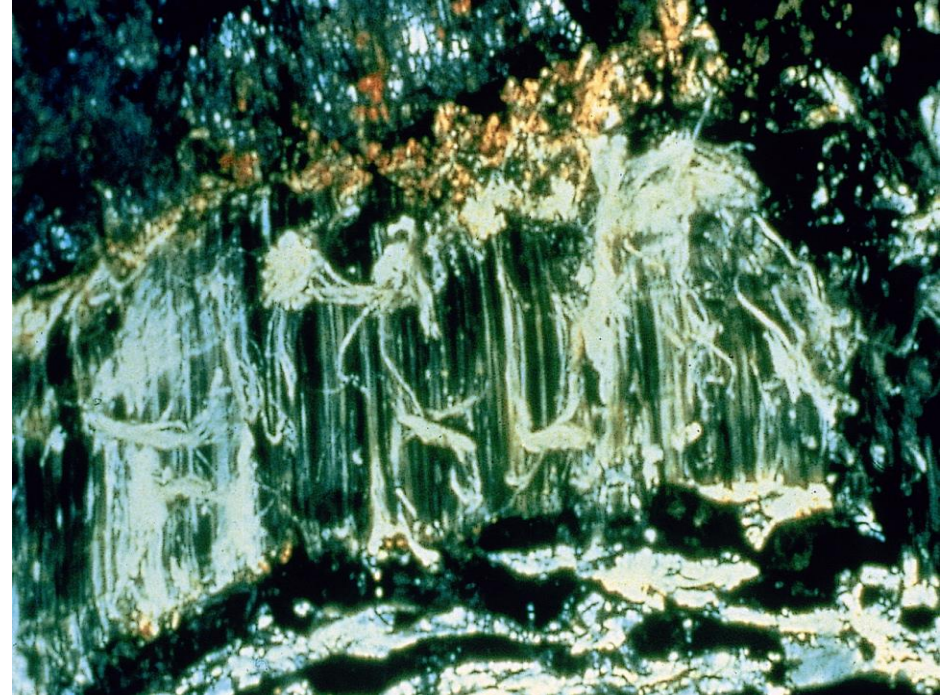
Overview - NC AHMP

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Chrocidolite

Chrysotile

Amosite



ASBESTOS MINERALS

Serpentine Group

- Chrysotile – 95%

Amphibole Group

- Amosite (Cumminstonite-Grunerite) 5%
- Crocidolite
- Anthophyllite
- Tremolite
- Actinolite

Uses of Asbestos

- Fireproofing or Insulation
- Flooring and Adhesives
- Thermal “Pipe” Insulation
- Cement Products like Asbestos Siding
- Condensate Control (HVAC)
- Decoration (Textured Ceilings or Walls)
- Etc., etc., etc. (over 3,000 building products)

A photograph of a house with a brown shingled roof and light-colored horizontal siding. A brick chimney is visible on the roof. Below the roofline, there are two windows with dark frames. A white arrow points from the 'Window Caulking' text to the lower-left window. Another black arrow points from the 'Chimney Caulking' text to the base of the chimney where it meets the roof.

Chimney Caulking

Window Caulking





Heat Duct Tape

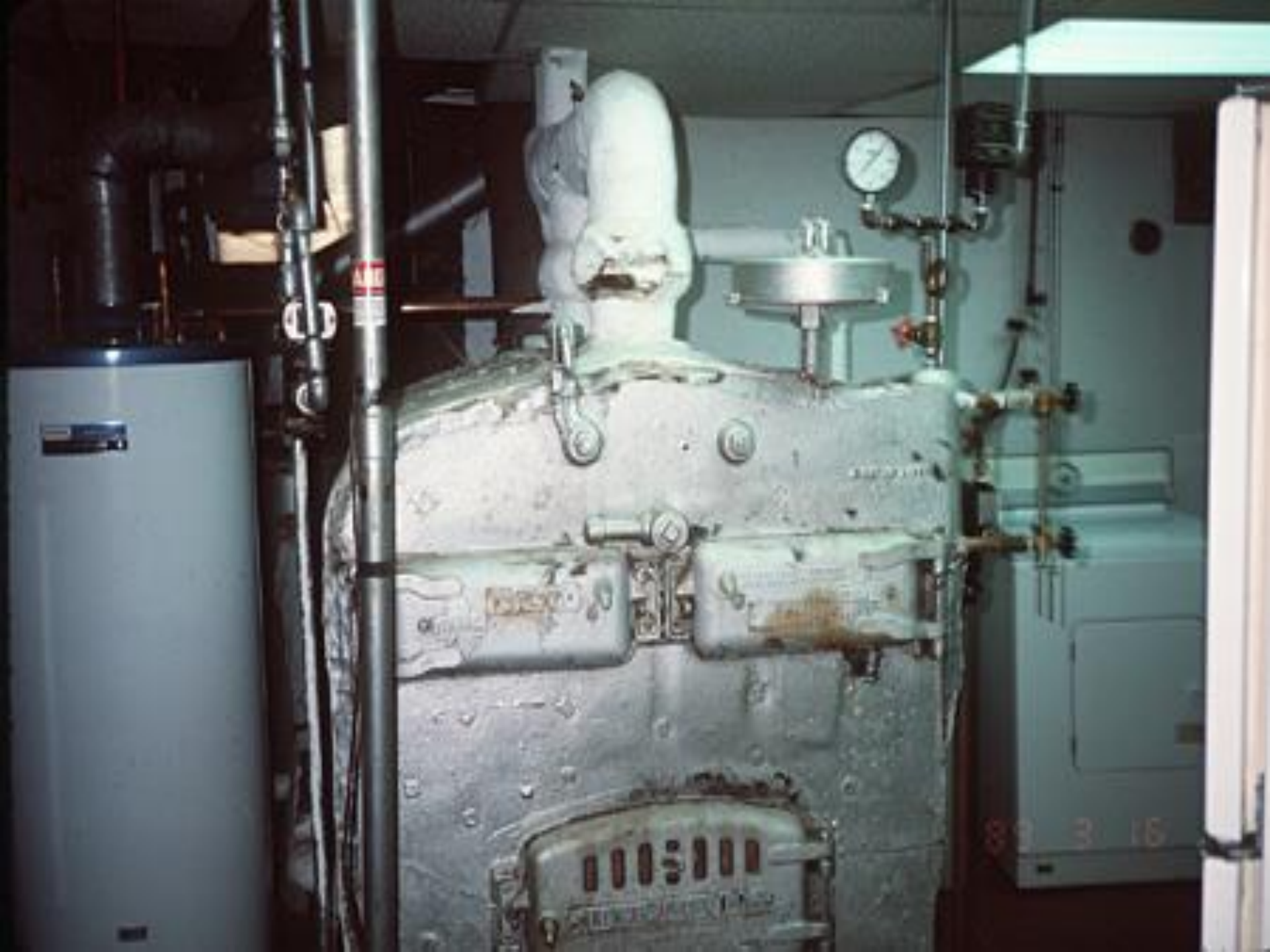














How do I know if it has asbestos?

- Assume as positive and hire an Abatement Contractor. (\$\$)
- Hire an NC accredited inspector.
 - Sampling
 - Laboratory analysis
 - Report of findings

NC Accredited Asbestos Disciplines - Mozilla

File Edit View Go Bookmarks Tools Window Help

← → ↶ ✕

http://www.epi.state.nc.us/epi/asbestos/accredited.cfm

Search

Home Bookmarks

Epidemiology is part of Public Health in North Carolina

Topics A-Z

Asbestos

Biological Agents Registry

Communicable Disease Control

DHHS Hurricane Information

Environmental Contaminants

Exposure to Chemicals

Fish Consumption Advisories

HIV/STD Prevention & Care

Indoor Air Quality

Lead

Medical Evaluation & Risk Assessment

Methamphetamine Labs

Occupational & Environmental Epidemiology

Occupational Illnesses & Injuries

Public Health Preparedness & Response

Tuberculosis

Veterinary Public Health

Asbestos in North Carolina

Search for NC Accredited Asbestos Professionals

Disclaimer:

The information provided by this search feature is to be used as a resource only and is subject to change. All accreditations should be verified as current before beginning any activities that require accredited professionals. This information is provided as a service and is not intended to be an endorsement by the HHCU of the companies or individuals named.

Discipline:

Supervisor

Project Designer

Inspector

Management Planner

Supervising Air Monitor

Air Monitor

Roofing Supervisor

Sort By:

☐ City

☐ Name

Search

[Topics A-Z | Communicable Disease Control | Exposure to Chemicals | Environmental Contaminants]

[Fish Consumption Advisories | HIV/STDs | Hurricane Information | Indoor Air Quality]

[Medical Evaluation & Risk Assessment | Occupational & Environmental Epidemiology]

[Occupational Illness & Injury | Ozone | Pfiesteria]

[Rabies | Tuberculosis | Veterinary Public Health]

[North Carolina Department of Health and Human Services]

What are the primary diseases related to asbestos exposure?

- Asbestosis
- Lung Cancer
- Mesothelioma

PRIMARY ROUTE
OF ENTRY IS
INHALATION





How long does it take for asbestos-related diseases to occur?

Latency Period

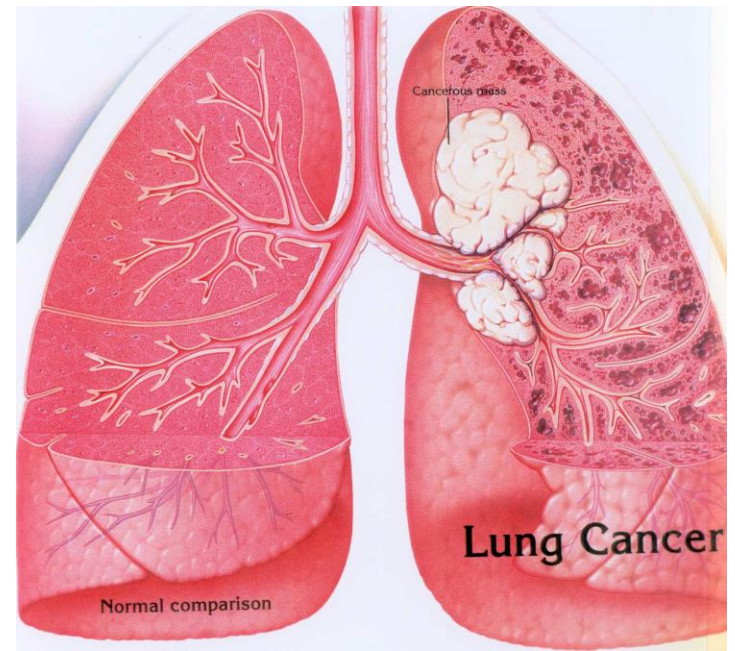
- Definition - the period of time between exposure to a particular toxin and the manifestation of the resulting disease.
- Asbestos-Related Diseases Latency Periods Range From 10 to 40 Years

Asbestosis

- A buildup of scar tissue causing a stiffening of the lungs and difficulty in breathing.
 - Typically has a latency period of 15-30 years
 - Reduces lung capacity
 - Scar tissue buildup may even increase after exposure has ceased.

Lung Cancer

- Many causes, asbestos is only one
- Most Common
- Typically takes ~30 years after initial exposure



Lung Cancer

- Those who smoke and work with asbestos unprotected are at much greater risk of contracting lung cancer
- (80 TIMES GREATER RISK).



Mesothelioma

- Cancerous tumor in the lining of the chest and abdomen
 - Is always fatal
 - It is believed to be only associated with asbestos exposure
 - Can be caused by lower levels and secondary/environmental exposure
 - Often takes 30-40 years after initial exposure.

Dose/Response Relationship

One would logically expect that as the amount of toxin taken in increases so does the likelihood of a disease manifesting itself.

Mesothelioma does ***not*** conform to this logical progression.

Other Health Effects

Suggestive / Not conclusive:

Stomach Cancer

Colon Cancer

Sufficient Evidence:

***Cancer of the Larynx**

Health Hazards Control Unit

Administers the North Carolina's Asbestos Hazard Management Program :



Asbestos Hazard Management Program

- **Accredit Individuals who Conduct Asbestos Management Activities**
- **Approve Asbestos Training Courses**
- **Review Asbestos Management Plans and Reinspection Reports for Public and Private Schools**
- **Permit Asbestos Abatement & Demolition Projects**
- **Conduct Compliance Inspections of Asbestos Abatement, Demolition Projects and for EPA AHERA (Asbestos in Schools)**
- **Conduct Community Outreach Activities**

Applicable Regulations

- National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) - (Renovations/Demolition)
 - 40 CFR Part 61, Subpart M
- Asbestos Hazard Management Program
 - Article 19, N.C. Gen. Stat. § 130A-444-451
 - 10A NCAC 41C .0600

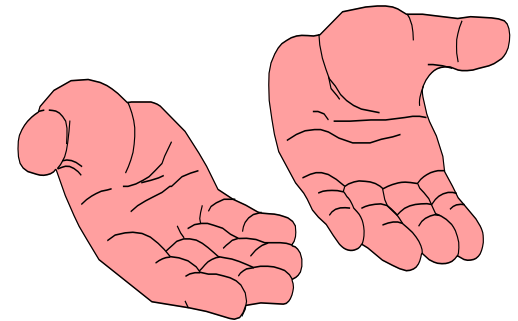
Regulated Asbestos Containing Material (RACM) – subject to AHMP Rules-permits

- ✓ **Friable**
- ✓ **Category I Non-friable ACM that has become Friable**
- ✓ **Category I Non-friable ACM that is sanded, ground, cut, or abraded**
- ✓ **Category II Non-friable ACM that is or will become crumbled, pulverized or reduced to powder during a demolition or renovation**

>1% asbestos = Asbestos-Containing Material = ACM

Friable Asbestos

- Any material containing more than 1% asbestos (ACM) that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure



Category I Non-friable ACM

- Asbestos containing packings, gaskets, resilient floor coverings (asphalt and vinyl floor tile and sheet vinyl), or asphalt roofing products containing more than 1% asbestos





Category II Non-friable ACM

- Any material, excluding Category I non-friable ACM, containing more than 1% asbestos, that when dry can not be crumbled, pulverized, or reduced to powder by hand pressure
- Examples: asbestos cement products, such as siding or roofing shingles





Overview of the NC Asbestos Hazard Management Program

Article 19, N.C. Gen. Stat. § 130A-444-451

10A N.C.A.C. 41C .0600

.0602 Accreditation

- No person shall conduct asbestos management activities unless accredited
 - exemption: small scale short duration activities as defined by **AHERA**
 - homeowners in their personal residence
 - government regulatory personnel



What are “Asbestos Management Activities” §

130A-444. Definitions

- "Asbestos" means asbestiform varieties of chrysotile (serpentine), crocidolite (riebeckite), amosite (cummingtonite-grunerite), anthophyllite, tremolite and actinolite.
- "Management" means all activities related to [asbestos containing material](#), including inspections, preparation of management plans, abatement project design, [abatement](#), project overview, and taking of samples.

§ 130A-444. Definitions

- "Abatement" means work performed to repair, maintain, remove, isolate, or encapsulate asbestos containing material. The term does not include inspections, preparation of management plans, abatement project design, taking of samples, or project overview.

Small-Scale, Short-Duration Activities

SSSD can be further defined by the following considerations:

- Removal of small quantities of ACM only if required in the performance of another maintenance activity not intended as asbestos abatement.
- Removal of asbestos-containing thermal system insulation not to exceed amounts greater than those which can be contained in a single glove bag.
- Minor repairs to damaged thermal system insulation which do not require removal.
- Repairs to a piece of asbestos-containing wallboard.
- Repairs, involving encapsulation, enclosure, or removal, to small amounts of friable ACM only if required in the performance of emergency or routine maintenance activity and not intended solely as asbestos abatement.
Repairs that can be handled in a single mini-enclosure

****Note: The primary purpose of these activities cannot be asbestos abatement.**



SSSD does not mean anything <160 SF / 260 LF !

- **Amounts greater than SSSD require accredited people**
- **Removal of 160 SF or 260 LF of RACM is the threshold for when a permit is required from the state**
- **Check with Buncombe, Mecklenburg and Forsyth counties for work done in their jurisdiction**

OSHA (29 CFR 1926.1101)

Class III Work – repair & maintenance where “ACM” is likely to be disturbed.

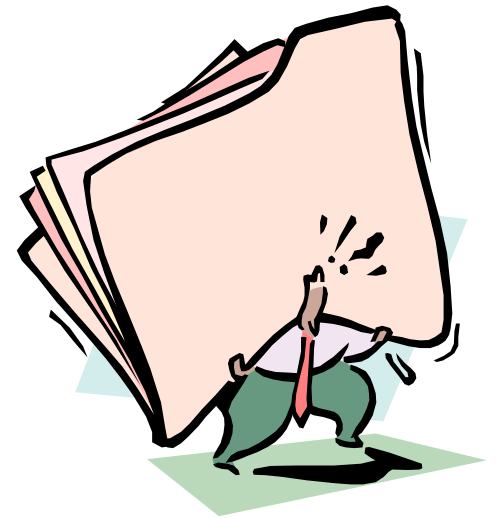
- *Disturbance* means activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM.
 - Disturbance includes cutting away small amounts of ACM and PACM, no greater than the amount which can be contained in one standard sized glove bag or waste bag in order to access a building component.
 - In no event shall the amount of ACM or PACM so disturbed exceed that which can be contained in one glove bag or waste bag which shall not exceed 60 inches in length and width.

.0602 Accreditation

- Requirements for accreditation
 - Training and work experience
- Nine disciplines
 - Worker
 - Supervisor
 - Inspector
 - Management Planner
 - Designer
 - Air Monitor
 - Supervising Air Monitor
 - Roofing Worker
 - Roofing Supervisor

.0605 ACM Removal Permits

- Permit required for removal of more than 35 cubic feet, 160 square feet, and 260 linear feet of RACM
- Applications submitted ten working days in advance
- No permit fee required for homeowners that live or are going to live in the residence (permit is required)



Popcorn Ceiling Material



damaged and friable
popcorn ceiling material



Uncontrolled popcorn
ceiling removal job





Other Applicable NC Regulations

- OSHA
 - 29 CFR 1926.1101
- Solid Waste Disposal
 - 10 N.C.A.C. 10G .0505
- Transportation
 - 49 CFR 173.1090



Questions

For additional information: Contact the
HHCUC, 919-707-5950

Website:

<http://epi.publichealth.nc.gov/asbestos.html>

