

NC Department of Health and Human Services

Health Hazards Control Unit (HHCU)



Overview - NC Asbestos Hazard Management Requirements (Not OSHA)

(919) 707-5950

What will we be talking about?

- **Background / Health Effects**
- **NC AHMP Rules**
- **EPA NESHAP**
- **Questions/Discussion**

Uses of Asbestos

- Fireproofing
- Flooring, Roofing
- Thermal Insulation
- Acoustical Insulation
- Condensate Control
- Decoration

Materials likely to contain Asbestos

- Trowel-Applied or Sprayed-On Fireproofing, Acoustical & Decorative treatments
- Flooring (e.g., asphalt tile, vinyl tiles, vinyl sheet flooring & backing felt, mastics, leveling compound)
- Gypsum Wall Systems (e.g., joint compound, skim coats, spackling, taping compounds)
- Plaster, Ceiling tile, Paints/Coatings, Mastics
- Cement Materials (e.g., Siding, Roofing, Lightweight Concrete)
- Etc., etc., etc. (over 3,000 building products)

How do I know if it has asbestos?

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

Find NC Asbestos Professional - Website



NC Accredited Asbestos Disciplines

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 Roofing Supervisor Inspector Project Designer Air Monitor Supervising Air Monitor Management Planner	Sort By: <input type="radio"/> City <input type="radio"/> County <input type="radio"/> Name	<input type="button" value="Search"/>
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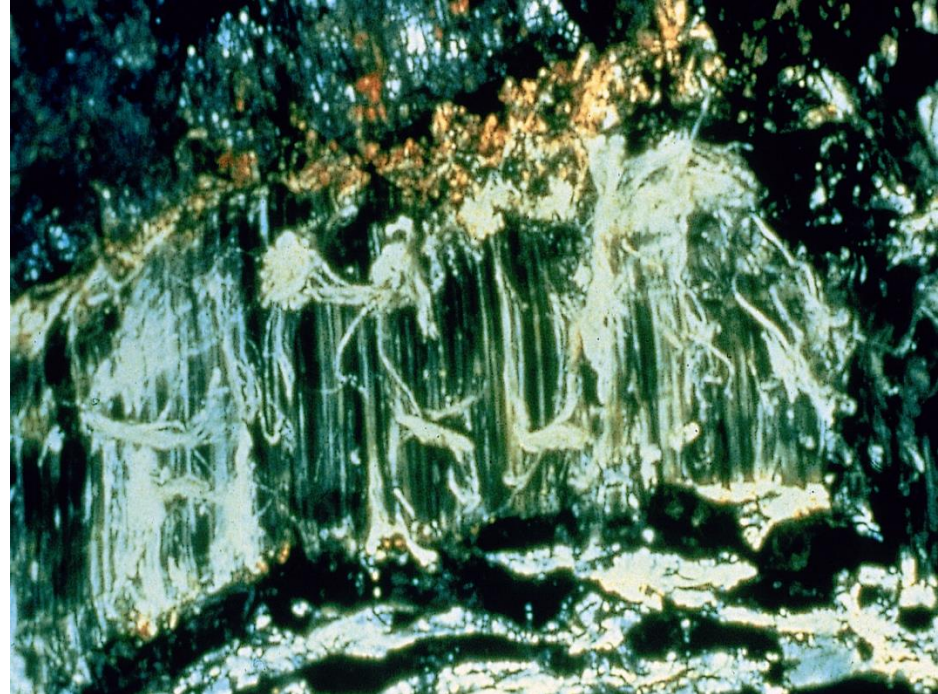
ASBESTOS MINERALS

Serpentine Group

- Chrysotile

Amphibole Group

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



Asbestos – Raw Mineral

Chrocidolite

Chrysotile

Amosite



What are the primary diseases related to asbestos exposure?

- Asbestosis
- Lung Cancer
- Mesothelioma

Primary Route Of
Exposure is
“INHALATION”



Fibers



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

“Latency Period”

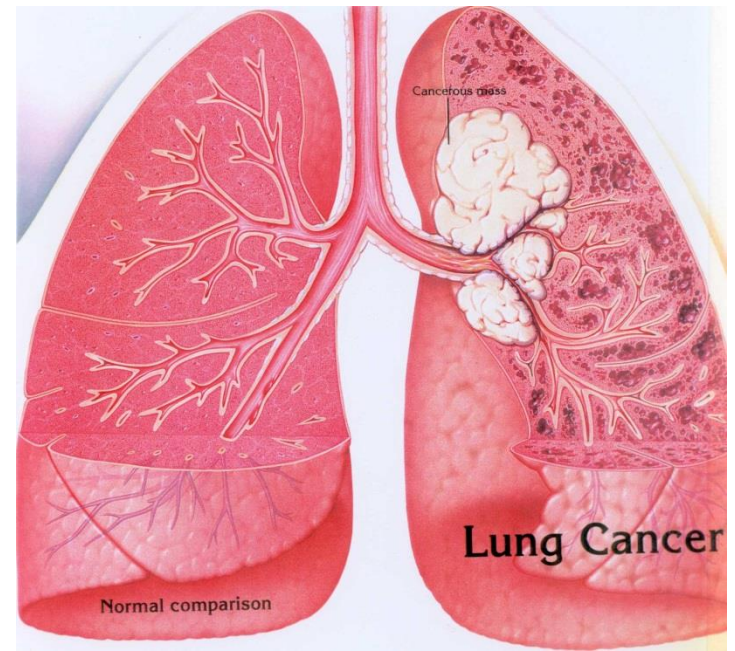
- Definition - the period of time between exposure to a particular toxin and the manifestation of the resulting disease.
- Asbestos-Related Diseases Latency Periods Range From 10 to 40 Years

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/or 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**

Other Health Effects

Non-fatal effects:

- **Pleural Plaques (scarring in chest lining)**
- **Clubbed Fingers**



Health Hazards Control Unit

Administers the North Carolina's Asbestos Hazard Management Program :



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

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**

NESHAP Overview (Demo/Reno)

– Applicability

- Covers all industrial, institutional, commercial, public, ships, waste disposal sites and residential facilities
- Exemption
 - Residential Buildings < 4 dwelling units
 - Exemption does not apply when the house will be used for live fire training purposes

NESHAP

Renovation

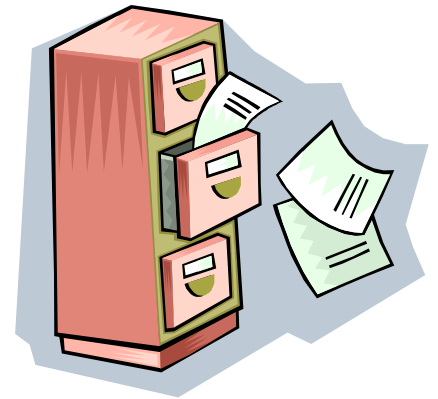
Means altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component.

Demolition

Means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility

Project Notification

- Must be submitted *ten working days* in advance
- No faxes accepted for Initial Notification
- Revisions may be faxed



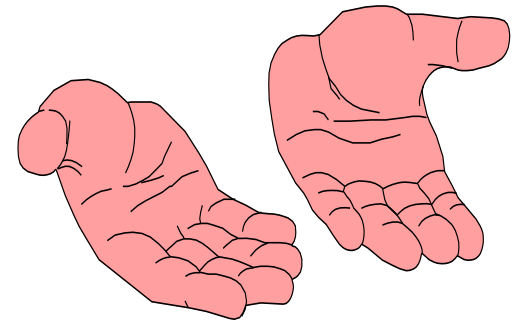
Regulated Asbestos Containing Material (RACM) – subject to AHMP Rules-permitting

- ✓ **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



Popcorn Ceiling Material



damaged and friable
popcorn ceiling material



Uncontrolled popcorn
ceiling removal job



Sprayed on Fireproofing



Trowel-Applied Decorative



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





Misc



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



Cement Materials



Before a demolition or renovation activity

- The owner or operator must thoroughly inspect for the presence of asbestos
- Inspection must be conducted by an inspector *currently* accredited by the HHCU



Project Notification

- Must notify the HHCU if renovation/demo activity disturbs amounts of RACM of at least
 - 160 square feet
 - 260 linear feet or
 - 35 cubic feet



Project Notification

- For all demolition activities (whether or not asbestos is present)
- Notify HHCU or local programs as appropriate
 - Forsyth County (336)703-2440
 - Mecklenburg County (704)336-5500
 - Buncombe County (828)250-6777



NESHAP Highlights

- No visible emissions
- Representative trained in the provisions of the NESHAP on-site (In NC this means an NC Accredited Supervisor)
- Use established work practices
 - keep material wet
 - contain material & labeled
 - dispose of waste properly
 - Permitted landfill



Overview of the NC Asbestos Hazard Management Program

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

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

.0609 Asbestos NESHAP for Renovations and Demolitions

- Each owner or operator of a renovation or demolition activity must comply with NESHAP
- Submit removals to HHCU & local programs, submit demo to HHCU unless in jurisdiction of local air quality programs

.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.

AHMP accreditation exemption

“Small-scale, short-duration activities (SSSD)” are tasks such as, but not limited to:

- Removal of asbestos-containing insulation on pipes (see last bullet next slide – “small amounts of friable ACM”.)
- Removal of small quantities of asbestos containing insulation on beams or above ceilings.
- Replacement of an asbestos-containing gasket on a valve.
- Installation or removal of a small section of drywall.
- Installation of electrical conduits through or proximate to asbestos-containing materials.



When in doubt – Ask?

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 as asbestos abatement. Repairs that can be handled in a single n enclosure

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



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

- **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-local programs for work done in their jurisdiction**

.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

Sample NC Accreditation Card

North Carolina Asbestos Accreditation



Donald F Chaney
42 Mickey Mouse Lane
Mouseville, FL 12345 40

EXPIRATION			
12-31-2007			
DOB	SEX	HT	WT
06-17-1958	M	5'6"	210
CLASS		#	EXP
INSPECTOR		12046	12-07
MGMT PLANNER		20857	12-07
SUPERVISOR		33594	12-07

This accreditation identification card has been issued pursuant to Chapter 130A, Article 19 of the NC General Statutes and is subject to revocation if the holder fails to comply with the requirements of 10A NCAC 19C Section .0600 or if the accreditation was issued based upon incorrect or inadequate information.

This card is nontransferable and will become invalid if loaned or given to another person for identification. This card will also be invalid if altered or defaced.

This card is the property of the North Carolina Department Health and Human Services. It must be returned to the Department if the holder's accreditation is revoked or if this card is invalidated. Any person performing regulated asbestos activities without current accreditation shall be subject to legal sanction.

YOU MUST HAVE THIS IDENTIFICATION CARD WITH YOU ON THE JOB.

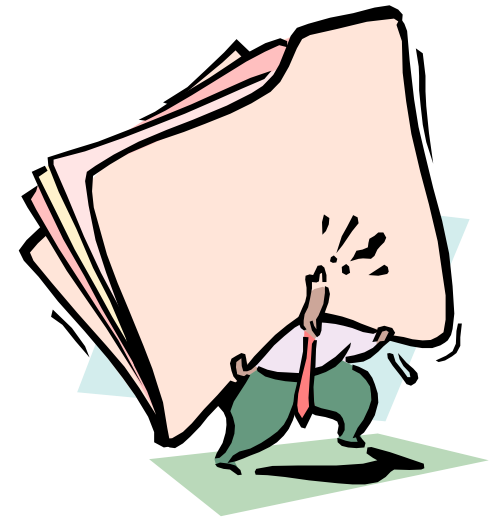
For information or corrections, direct all inquires to the following:

Health Hazards Control Unit
NC Department of Health and Human Services
Division of Public Health
1912 Mail Service Center Raleigh, NC 27699-1912
(919) 707-5950



.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)



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
HHCU, 919-707-5950

Website:

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

