ASBESTOS AWARENESS

With details specific to The University of Alabama campus

What is Asbestos

It is the name given to 6 naturally occurring minerals mined from the earth.

Crystalline structure forms long thin fibers.

Fibers that are visible are actually bundles of fibers containing hundreds or thousands of fibers.

The U. S. stopped mining in the early 1980's.

Why Was It Used?

Asbestos is nearly indestructible

- it is chemical resistant
- it resists heat and friction
- it doesn't break down over time

Types of Asbestos

Chrysotile-white in color, accounts for 95%of all asbestos

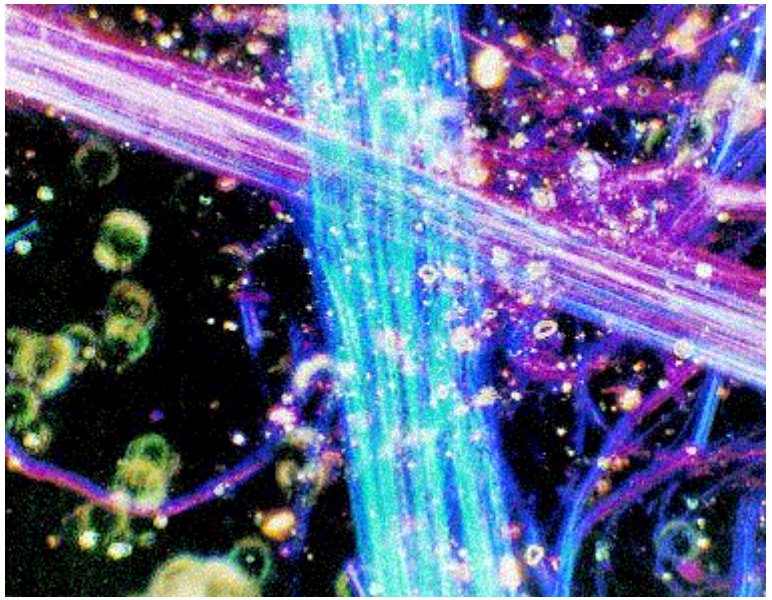
Amosite-brown or tan in color, especially effective for high temperature applications

Crocidolite-blue in color, steam pipe boiler applications

Tremolite, Actinolite, Anthophyllite-found mostly as a contaminate

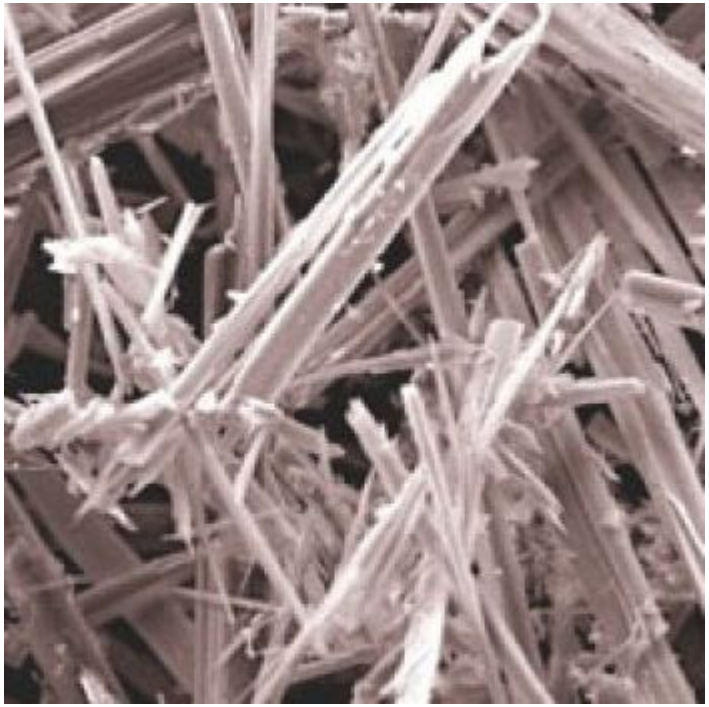
Chrysotile on Campus

Chrysotile has been found in a variety of building materials on campus including: pipe insulation, sprayed on textures, boiler insulation, floor tile, flooring mastic, linoleum, caulking, transite duct work, slate shingles, one shot insulation, fireproofing, gaskets, cementous panels, slate laboratory bench tops, joint compounds, roofing materials, electrical insulation, fire hoses and blankets, gloves, wicks and other materials.



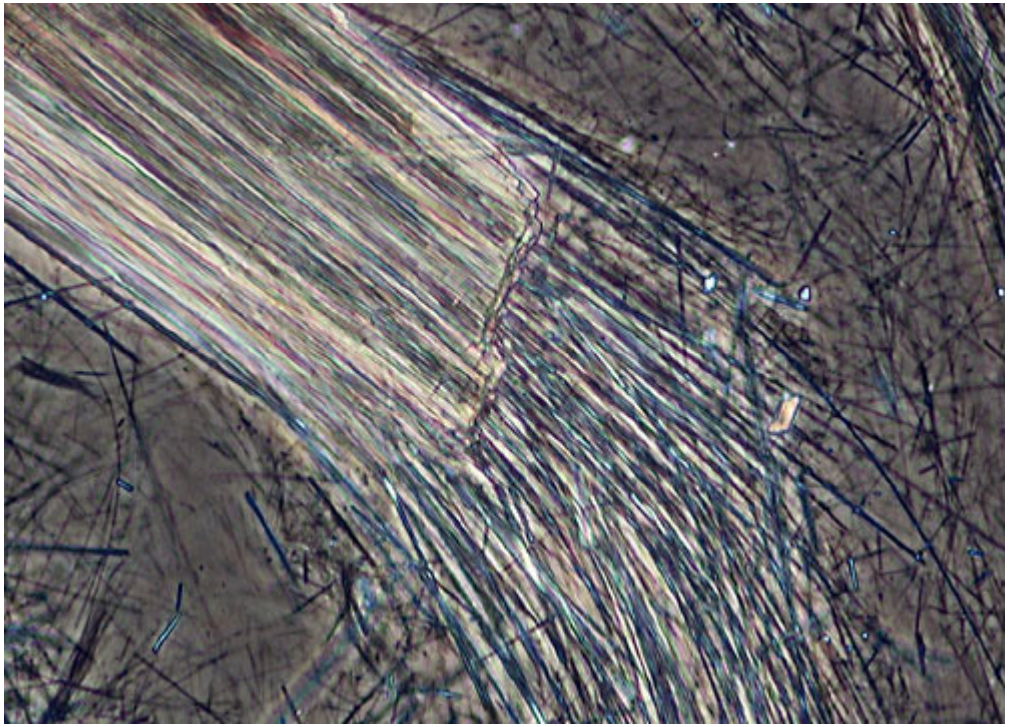
Amosite on Campus

Amosite has been found in only a few applications on campus. Some boiler and pipe insulation has been found to contain asbestos. At one time the interior of the Coliseum was sprayed with an amosite based accoustical material. This was removed several years ago.



Crocidolite on Campus

On rare occasions crocidolite has been found on campus. This has been in high temperature applications.



History

Asbestos has been used for over 2000 years.

The word comes from ancient Greece and means non-burnable.

Greeks and Romans used asbestos extensively.

Became widely available in the late 1800’s when major deposits were found in Canada.

History

During World Wars I and II the military used asbestos extensively.

Half of all multi-story buildings built in the U. S. from 1950-1970 contain some form of asbestos building materials (ACBM).

Health risks associated with asbestos exposure resulted in a reduction of use beginning in the 1970's.

History at UA

The University began an in-house abatement program in the early 1980's. During this time millions of dollars of abatement work has been done. Removal of sprayed on coatings, insulating material and pipe coverings made up the majority of this work. At present most of the work is removal of flooring material in support of renovation projects.

EHS Responsibilities

EHS is the area responsible for the administration of the asbestos program. The program is made up of several supporting functions.

EHS provides building surveys prior to renovation or demolition to determine if asbestos containing material will be disturbed.

EHS provides full service laboratory functions. This includes analysis of bulk materials sampled during building surveys and analysis of air samples.

EHS manages an asbestos abatement program. This includes the in-house abatement program as well as contracted projects.

EHS Responsibilities

EHS maintains a database which details areas where asbestos containing building materials are known to exist.

EHS provides consulting services to the University community and the interested public regarding asbestos related issues.

EHS provides training via the SkillSoft Academy and classroom type sessions.

Why is Asbestos a Problem??

Asbestos can break down into fibers that are invisible to the eye and can remain in the air for hours or days.

Some asbestos material can become friable, which means fibers can be released by normal hand pressure.

Because of these factors serious health effects can occur.

Health Effects

Inhalation of asbestos fibers leads to an increased risk of developing several severe diseases.

Most asbestos related illnesses are dose related. This means the greater the exposure to asbestos the greater risk of developing an illness.

There is no safe level of exposure to asbestos. However the more you are exposed to asbestos and the more fibers that are inhaled the more likely you are to develop asbestos related problems.

Health effects can occur 15-30 years following exposure.

Health Effects

Asbestos has a synergistic effect with other air contaminants. For example if you smoke and have been exposed to asbestos your chances of getting lung cancer is much greater than someone who only smokes or only has been exposed to asbestos.

Asbestos Related Diseases

Asbestosis - an emphysema type lung disorder, characterized by scarring, normally associated with repeated high level exposures

Lung cancer

Mesothelioma - a fatal chest or abdominal cavity cancer, can have a 30-40 year latency period

Other diseases - cancer of the esophagus, stomach, colon and pancreas

Exposure Limits

0.1 fibers per cubic centimeter of air as an 8 hour time weighted average.

1.0 fibers per cc of air over a sampling period of 30 minutes.

How Might I be Exposed to Asbestos

We are all exposed to levels in the air we breathe. These range from 0.0001 to 1.0 fibers per cc of air. These levels are generally highest in cities and industrial areas.

On a busy street corner these levels may exceed 1.0 fibers per cc of air.

People living near highly industrialized areas may be exposed to higher levels of asbestos.

Fibers are released into the air when asbestos containing materials are disturbed during demolition, renovation, maintenance or product use.

How to Avoid Exposure

Presume all building materials contain asbestos unless known otherwise.

Do not install screws, nails or hangers into asbestos ceilings or wall plaster.

Be careful not to damage walls, ceilings or floors when moving furniture or equipment.

Do not sweep or vacuum asbestos debris; instead prevent others from spreading it and immediately contact EHS.

Report damaged or deteriorated suspect building materials to your supervisor or EHS.

Care of Vinyl Asbestos Floor Tile

Strip floors as infrequently as possible.

Use the least aggressive pad as possible that will get the job done.

The floor machine used to strip should be used at as slow a speed as possible (175-300 RPM).

Seal the floor with 2-3 coats of sealer or wax.

Spray buff and burnish at as low a speed as possible and use the least aggressive pad possible.

Renovation Procedures

Large scale renovation projects and most small projects are surveyed for asbestos prior to work.

The project manager gets a copy of the survey report. A copy of this report should be forwarded to each department along with work requests.

If you are not sure about certain building materials, ask your supervisor or request EHS sample the material.

Anyone may request information from EHS regarding sampling, results of sampling or areas known to have asbestos containing building materials (ACBM)

Asbestos Abatement

EHS manages the University abatement crew.

The abatement program handles a variety of projects including tile and mastic removal, pipe insulation abatement, installing equipment and furnishings and others which involve asbestos building materials.

The program operates to support Construction Administration and Facilities.

To schedule abatement work contact EHS.

Information

If you need further information regarding asbestos contact EHS at 348-5905 or come by at 410 Campus Drive East.