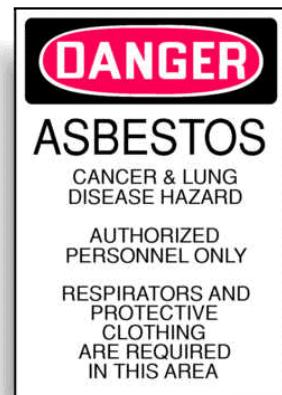




OCCUPATIONAL HYGIENE AND SAFETY DIVISION

ASBESTOS MANAGEMENT GUIDE FOR DUKE UNIVERSITY RESIDENTS



WHERE IS THE ASBESTOS?

Asbestos-containing materials (ACM) have been installed in many of the buildings at Duke. The most common ACMs are pipe insulation on steam and water pipes, flooring and floor mastics, textured ceilings and plaster.

ARE THESE MATERIALS DANGEROUS?

ACM is not hazardous when undamaged and/or undisturbed. When disturbed, these materials might release microscopic fibers into the air, which, when present in high quantities, may pose a hazard to building residents. If materials are found to be damaged, they will be repaired or "abated."

WHAT DO I DO IF I FIND DAMAGED MATERIALS THAT MAY CONTAIN ASBESTOS IN MY AREA?

Contact the Housing & Residence Life (HRL) Campus Office. For West Campus, email upperclasscampus@duke.edu or call 919-684-5486. For East Campus, email rlhs-east@studentaffairs.duke.edu or call 919-684-5320. Facilities and Operations can be contacted at 919-684-5226.

WHAT IS AN ASBESTOS ABATEMENT?

Abatement includes all actions to control any hazards posed by the presence of asbestos-containing materials. Removal is the preferred response action; however, circumstances may require enclosing or encapsulating the materials instead.

HOW IS AN ABATEMENT ACCOMPLISHED?

All abatements are done in a controlled manner, in three phases: 1) preparing the area; 2) removing, enclosing, or encapsulating the ACM; and 3) clearance (visual and/or air sampling).

Preparation involves setting up an *enclosure*; sealing up all windows, doors, ventilation ducts, and other openings with plastic sheeting, and turning off the heating, ventilation and air conditioning (HVAC) system. Additional plastic sheeting may be used to establish all perimeters of the abatement, or, if the abatement is small, a mini-enclosure may be established. The enclosure is then placed under *negative pressure* to ensure that no air will leak from the controlled area into adjacent areas. Decontamination areas are then set up to allow abatement workers to enter and exit safely, as well as for bagged waste to be removed for disposal. Prior to disturbance of any asbestos-containing building materials, an accredited professional conducts an inspection of the enclosure to verify that it is adequate for the planned abatement.



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ASBESTOS MANAGEMENT GUIDE FOR DUKE UNIVERSITY
RESIDENTS (CONT.)**HOW IS AN ABATEMENT ACCOMPLISHED (CONT.)?**

Actual removal is primarily performed by hand to minimize the disturbance of the material. Water is used to wet the material to minimize dust levels. Negative air machines with High Efficiency Particulate Air (HEPA) filters are used to capture any asbestos fibers that may have been released. After the gross removal of the asbestos-containing material is complete, a final cleaning of all surfaces within the enclosure is performed.

The last phase of the abatement process is clearance. Clearance activities are completed by an accredited professional, separate from the abatement contractor, to ensure that the area is safe for re-occupancy. The first step is a visual inspection to verify that no ACM remains in the area. If such materials are found, they are removed and the final cleaning process is repeated by the abatement contractor. When an acceptable visual inspection is achieved, air monitoring may be performed (if required) to verify that airborne fiber levels meet the North Carolina criteria for public occupancy. This limit is 0.01 fibers per cubic centimeter (f/cc) of air. If analytical results show fiber levels above 0.01 f/cc, the area is re-cleaned and re-monitored until airborne fiber levels are below the limit.



After laboratory analyses show acceptable airborne fiber concentrations, the abatement is considered complete, the enclosure is disassembled, and the area is opened for re-occupancy.

IT SOUNDS LIKE YOU ARE DOING A LOT TO ENSURE THAT THE ABATEMENT AREA IS SAFE, BUT HOW ABOUT THE OCCUPIED AREAS ADJACENT TO THE ABATEMENT?

The enclosure and abatement work procedures are planned to ensure that any person outside the controlled area of abatement will not be at risk. To validate this, an accredited professional, separate from the abatement contractor, conducts routine inspections of the enclosure and conducts air monitoring in adjacent areas.

I'VE HEARD THAT EVEN LOW LEVELS OF ASBESTOS EXPOSURE CAN CAUSE DISEASE. AM I REALLY SAFE WITH ALL OF THE ABOVE CONTROLS?

While there is some uncertainty regarding the potential for asbestos-related disease at low exposure levels, both the North Carolina Department of Health and Human Services (NCDHHS) and the United States Environmental Protection Agency (EPA) consider exposures below 0.01 f/cc to present no significant risk.

If you have any questions or concerns about the health risks of an asbestos abatement or ACM in or near your residence, feel free to contact the Duke OESO Occupational Hygiene and Safety Division.

Box 3387
Durham, NC 27710
Phone: 919-684-5996
Fax: 919-681-5916
<https://www.safety.duke.edu/>