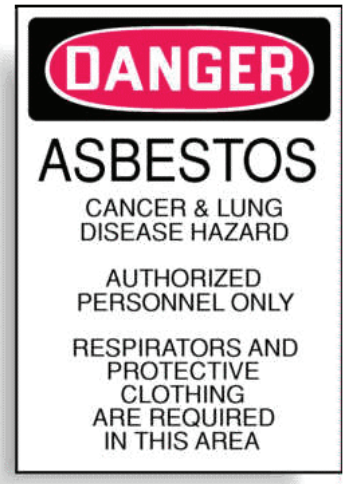
OCCUPATIONAL HYGIENE AND SAFETY DIVISION

DUKE OESO

ASBESTOS ABATEMENT GUIDE FOR DUKE UNIVERSITY RESIDENTS

WHERE IS THE ASBESTOS?

Asbestos-containing materials have been installed in many of the buildings at Duke. The most common use is in pipe insulation on steam and water pipes, floor tile, and acoustical plaster. It is in pipe insulation in some East and West Campus residence halls. On Central Campus, it is present in low concentrations in some textured ceilings and flooring.



ARE THESE MATERIALS DANGEROUS?

Asbestos-containing materials are not hazardous when they are undamaged. 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 the materials are found to be damaged, they are repaired or *"abated."*

WHAT DO I DO IF I FIND DAMAGED MATERIALS THAT MAY CONTAIN ASBESTOS IN MY ROOM OR UNIT?

Contact the appropriate Housing, Dining, & Residence Life (HDRL) Campus Office. This is most likely to be an issue on Central Campus. Report any significant ceiling damage areas (those five inches or larger in circumference) to the Central Campus office at 217 Anderson (email: rlhs-central@studentaffairs.duke.edu; phone: 919-684-5813) so appropriate repair can be made. For West Campus, report to the office in Craven Quad, House D, Room 101R (email: rlhs-west@studentaffairs.duke.edu; phone: 919-684-5486). For East Campus, report to the office in Brown-Union Arcade (email: rlhs-east@studentaffairs.duke.edu; phone: 919-684-5320).

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 method of abatement; however, circumstances may require enclosing or encapsulating the materials instead.

HOW IS AN ABATEMENT DONE?

All abatements are done in a controlled manner, in three phases: 1) preparing the area; 2) removing, enclosing, or encapsulating the asbestos; and 3) clearance.

Preparation involves setting up an *enclosure;* sealing up all windows, doors, ventilation ducts, and other openings with plastic sheeting. Additional plastic sheeting may be used to cover all perimeters of the abatement, or if the abatement is small, a mini-enclosure may be set up. The area is then placed under *negative-pressure* to ensure that no air will leak from the controlled area into adjacent areas. Airlocks 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 any work with the asbestos material, an inspection of the enclosure to verify that it is adequate for the planned abatement is conducted by an accredited professional.

Actual removal is done mostly by hand to minimize the disturbance of the material. Water is used to wet the material to further reduce its potential to release fibers. Negative air machines with High Efficiency Particulate Air (HEPA) filters are used to capture any of the fibers that may have been released. After the gross removal of the asbestos-containing material is done, a final cleaning of all surfaces within the enclosure is performed using wet sponges or rags and HEPA vacuums.

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HOW IS AN ABATEMENT DONE (CONT.)?

The last phase of the abatement process is clearance. Clearance includes activities done 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 asbestos or residue remains in the area. If such materials are found, the final cleaning described above is repeated by the abatement contractor. When an acceptable visual inspection is achieved, air monitoring is then done 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 independent laboratory analysis shows acceptable airborne fiber concentrations, the abatement is considered officially over, the enclosure is taken down, and the area is cleared 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 as well as the 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.

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 and the federal Environmental Protection Agency (EPA) consider exposures below 0.01 f/cc to present no significant risk.

If you do have any concerns about the health risks of an asbestos abatement in or near your residence, feel free to call Student Health Services at 919-681-9355.

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