UCONN | UNIVERSITY OF CONNECTICUT

ENVIRONMENTAL HEALTH AND SAFETY

ASBESTOS ABATEMENT INFORMATION SHEET

An asbestos abatement project is scheduled to take place in the building in which you work. This material has been prepared to provide you with a description of where the abatement will take place, and how the abatement will be performed. Access to these areas will not be permitted.

Location Description	Project Dates

Controlled Environment for Removal:

The U.S. Environmental Protection Agency and the CT Department of Public Health have stringent regulations about asbestos removal, which is done only under rigorously controlled environmental conditions. The method to be used to control the removal environment is called a negative-pressure air filtration system.

Negative-pressure filtration is a system that controls the flow and volume of air contained inside a removal work-site's barrier walls. The primary purpose of the system is to prevent airborne asbestos from escaping outward past the barriers to contaminate the rest of the building's air space. This is generally how the process works:

1. The work site is completely sealed off with polyethylene sheeting. All openings that would allow the passage of air are sealed. The result is an airtight cocoon that completely envelops the workspace.

2. A three-celled decontamination chamber is built to allow workers to pass into and out of the sealed work site. This decontamination unit has four successive sets of flapped door coverings. These flaps operate much the same as heart valves. They will allow outside air to pass inward, but fall shut to prevent inside air from escaping outward. It is essential that large volumes of air be allowed to pass inward through the flapped doors and into the work site.

3. Negative-pressure air filtration machines are installed in the enclosed work site. Each of these machines can move up to 2,000 cubic feet of air per minute. The air is drawn through the front of the unit and, after filtering out any asbestos fibers, it exhausts through the rear via ductwork or plastic, to the outdoors. The air passes through three stages of filters, including a 12-inch thick, high efficiency particulate air (HEPA) filter that traps microscopic particulate matter, such as the invisible asbestos fibers.

4. When the machines are turned on, they pull in thousands of cubic feet of air each minute, filter any contaminants out of the air, and then forcibly exhaust that filtered air out of the sealed space to the outdoors. This rapid evacuation of air causes the air pressure within the sealed space to drop somewhat. The higher ambient air pressure outside the sealed barriers will then cause air to rush in toward the lower, or "negative," pressure wherever it finds an opening.

5. Once the machines are turned on, large volumes of air begin to move inward through the flapped doors of the three-chambered air lock. Enough filtration machines are installed so that together they can completely change all the air within the space every 15 minutes. The constant inward rush of outside, or "make up" air, serves several purposes. First, it constantly pushes contaminated air toward the intakes of

the air-moving units, thus clearing airborne asbestos contamination even as it is being created by workers who are disturbing asbestos materials. Second, the constant inward rush of air through the decontamination chamber prevents airborne contamination from moving outward even as workers move through the decontamination process and exit. Finally, during the final clean-up phase of a project, the machines process the air to remove any residual amounts of asbestos that may remain aloft after the asbestos materials have been removed from the site.

Negative-pressure filtration is the primary system that prevents the spread of asbestos contamination throughout the rest of a building's air space. It also helps to protect the asbestos removal workers by constantly cleaning the air inside the site, thereby greatly lowering the workers' overall potential for exposure. Negative air machines will run constantly throughout the project, 24 hours a day, until the work is complete and final air monitoring has been conducted by a third-party project monitor to show that air quality meets EPA's final clearance air standards. At this point, the negative air machines are shut down and the containment structure is removed.

For your safety, and per state and federal regulations, warning signs will be posted at various locations outside the regulated area of the asbestos project, to prevent access to the work site. These signs are used to instruct on the asbestos hazards and the necessary personal protective equipment for entry into the work area. They will remain in place until final clearance air monitoring has been conducted.

The University of Connecticut Program:

As indicated at the outset, the removal of asbestos containing material is done under stringently controlled environmental conditions designed to protect others within the building, as well as the asbestos removal workers, the local environment and the community. A licensed asbestos abatement contractor performs the asbestos abatement. In addition, an Asbestos Abatement Project Monitor will be on-site during the entire removal project. Project Monitors are licensed by the CT Department of Public Health and are not affiliated with the asbestos abatement contractor. The Project Monitor will conduct inspections and air monitoring of the work-site on a daily basis to verify compliance with the safety specifications. These inspection and air monitoring tasks will ensure that the engineering controls are working and program procedures are being followed.

For the duration of the project you will hear the constant "hum" of the air sampling equipment at varying points throughout the project. A unit called a "bead blaster" may be used to remove tile glue from floors, and it will create vibration and noise. You might detect odors that originate from the work site. These odors will be spray glue used to erect the containment and, in some cases, products used to remove glue and floor tile mastic. These products are safe to use in occupied buildings and material safety data sheets are available at the site, should you wish to peruse them. Should this be the case, please contact the UConn Project Manager or Asbestos Coordinator rather than dealing directly with the abatement contractors.

Please direct any questions or concerns regarding the execution of this project to:

Project Manager/Asbestos Coordinator	Phone

Health or safety questions should be directed to <u>Val Brangan</u>, Occupational Health and Safety Manager, Department of Environmental Health and Safety at 486-3613.