

**ADVISORY NO. 3.4: OPERATIONS AND MAINTENANCE PROCEDURE:
CEILING TILE REMOVAL**

Certain buildings at U.C. are fireproofed with asbestos-containing material (ACM) which is sprayed/troweled onto the roof deck of one or more floors in the building. In most occupied areas, a dropped, tile ceiling is usually in place below the ACM. As the ACM fireproofing ages, some of it delaminates and falls to the dropped ceiling creating a potential asbestos hazard when:

1. Tiles are removed or displaced to perform maintenance activities.
2. Cable, etc., is pulled across intact tiles

The following guidelines are designed to minimize exposure to maintenance workers and building occupants and should be followed **anytime work is performed above a dropped ceiling which may be contaminated with ACM.**

PROCEDURE

1. Environmental Health & Safety must be contacted for approval **prior to any work above dropped ceilings in asbestos areas.** Also, a job request form must be submitted to Environmental Health & Safety for approval prior to the start of the removal.
2. If work is to be performed in an office or area where occupant access is readily restricted, the entrance to the area must be properly posted with asbestos "**DANGER**" signs and no persons allowed entrance while work is underway. In other areas, i.e., hallways, an opaque barrier (dark polyethylene) must be erected to restrict access to the work area. This barrier is to be posted as above.
3. Floors and immovable objects below the affected tiles are to be covered with polyethylene prior to starting work.
4. HVAC should be shut down or intakes/exhausts covered, where feasible.
5. Workers:
 - must have a minimum of 16-hour Operations and Maintenance training from an EPA-accredited training facility
 - must wear respirators with HEPA filter cartridges while performing work and clean-up (half or full face)
 - must wear eye protection and disposable tyvek suits
6. A HEPA (high efficiency particulate air) vacuum must be used to vacuum all tiles before they are removed. If possible, the top of the tile adjoining one that is to be displaced should be vacuumed before the affected tile is placed on it.. This will avoid contamination of the underside of the affected tile. All tiles left in place, across which cable, etc., will be dragged, must also be vacuumed (extension nozzles are available for this purpose). In addition, any equipment and the work area around it located above the drop ceilings must be HEPA vacuumed prior to working on the equipment.
7. Upon completion of work, all tiles are to be replaced in their original position. Gaps due to damaged/missing tiles are to be covered with dark polyethylene sheeting until suitable replacement tiles are obtained. Damaged tiles may be treated as ordinary trash and should be placed in sealed bags for disposal.
8. All floor polyethylene sheeting, polyethylene sheeting covering immovable objects, and barrier polyethylene (where applicable) is to be HEPA vacuumed and/or wet-wiped before it is taken up.

Disposable suits must also be HEPA vacuumed prior to leaving the work area. Respirators and suits are not to be worn outside the work area.

9. Disposable HEPA vacuum bags must be replaced routinely depending upon frequency of use. HEPA filters and pre-filters may also have to be replaced, according to manufacturer's recommendations. Respirators are to be worn during this maintenance activity and the bags/filters misted with water during replacement. The bags/filters are to be placed in asbestos bags and treated as asbestos regulated waste.
10. Area and/or personal air samples will be taken during the work. The samples will be taken by the Environmental Health & Safety or their representative. The samples will be analyzed by an accredited laboratory by NIOSH Method 7400. If the air monitoring determines that these procedures are not adequate, more stringent work practices/controls will be used.