



Asbestos Technical Guide Work Above Suspended-Ceilings

Introduction

This guidance covers procedures for entering and conducting work above a lay-in (or drop) ceiling that contains asbestos (acm) fireproofing in the plenum. This work is normally conducted by those responsible for Operations and Maintenance in the facility, but may be required of outside contractors working on a project. Examples of this sort of activity include:

- Moving a sprinkler head
- Replacing a broken or stained ceiling panel
- Adjusting variable air volume box
- Installing or repairing wiring or plumbing

It is always preferable to conduct above-ceiling work in an area with asbestos fireproofing after normal working hours, in order to minimize disturbance to nearby operations and avoid undue alarm among occupants.

Pre-Work Activities

As required in the GSA policy, a notification or release to perform the work should always be obtained in advance from the Property Manager or asbestos program manager, in the form of a work permit or similar notice. Consideration should be given of how the work performed could adversely affect the fireproofing. For example, shooting hangers into a deck with a hilti-gun can readily dislodge fireproofing. Work practices should be used that minimize disturbance of either the fireproofing or potential, fallen asbestos on the ceiling panels. Items to consider in the planning stage of the project are:

- Types of personal protective equipment that might be needed
- Ensure tenants and other occupants in the area are notified in advance
- Gather tools, equipment and materials to be used in the work area.
- Shut off and lock out HVAC and electrical systems serving work area
- Vacate and secure the work area, such as by locking doors and/or setting up temporary barriers
- Have personal air monitoring performed as needed to gauge occupational exposure
- Pre-clean work area beneath the ceiling, if visible dust or debris is present

Setting up Work Areas

Spread a single layer of polyethylene plastic to act as a drop cloth, on the floor of the work area. The drop cloth should cover an area large enough to catch falling debris. If work is to be performed at an elevated level, the drop cloth should be placed on the work platform, or extended at floor level beyond the immediate work location to catch any debris.



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Property managers or maintenance contractors may consider purchasing portable mini-enclosure units designed for this type of work and can be assembled, disassembled and moved easily.

Mini enclosures should be constructed up to the drop ceiling but should not be taped to the ceiling tile or grid system to prevent damage. If the ceiling panel will withstand contact without damage and is in good condition, foam tape can be placed on the top edge of the enclosure. Gently lift the enclosure into place until a good seal to the ceiling tile is obtained. After the enclosure is in place, check for, and clean up any debris generated by the enclosure installation. The mini enclosures should be set up with a negative pressure system as described below to reduce the possibility of fibers being released from the enclosure and to filter the air inside the enclosure.

Negative Pressure System and HEPA Filtered Local Exhaust Ventilation

Mini enclosures should be provided with a negative pressure system to reduce the possibility of fibers being released from the enclosure during the work, and to filter inside air discharged from the enclosure. Negative pressure inside mini enclosures is commonly provided by a High Efficiency Particulate Air (HEPA) filtered vacuum. A HEPA vacuum will usually provide sufficient negative pressure for a small enclosure. Larger enclosures might require a small negative pressure machine (HEPA filtered fan unit) to achieve a negative pressure inside the enclosure.

The HEPA vacuum for a mini-enclosure is most commonly located outside the enclosure. The intake side of the unit is ducted to the enclosure through the vacuum hose or flexible duct material taped to a hole in the enclosure. The hose attached to the HEPA unit should be kept as close as possible to the location where ACM might be disturbed.

Work Practices

When clothed in personal protective equipment, carefully lift up the ceiling panel while HEPA vacuuming around the edges of the panel. Keep the panel as flat as possible while lifting. Lift the panel slightly above the grid system and slowly slide panel to one side, placing the panel on top of an adjacent panel. Lightly mist the top side of the ceiling where the work will occur using a garden sprayer with amended water. Pick up any bulk debris on top of the ceiling panels where the work will occur and place it into disposal bags. HEPA vacuum the ceiling suspension system and top side of the ceiling tiles where the work will occur. After the scheduled work is completed, wet wipe or HEPA vacuum the underside of the panel which was moved. Carefully replace the ceiling panel.

Clean-Up and Tear-Down

- Package and label any asbestos waste generated for disposal



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- Clean tools, equipment and work area using wet wiping and HEPA vacuuming as appropriate and return tools and equipment to outside work area.
- Decontaminate packaged waste & move the waste to outside the work area.
- Workers decontaminate and remove protective clothing and respirators. If contaminated, dispose of protective clothing as ACM.
- Complete visual inspection.
- Complete air monitoring as feasible
- Remove drop cloth and/or mini enclosure
- Transport waste to designated asbestos waste storage area.
- Remove lockout tags and restart HVAC/electrical system(s)
- Restore normal accessibility to work area.
- Notify the Property Manager or the Asbestos program manager that the work is completed

Packaging and Labeling Waste

Asbestos containing waste material from O&M activities should be adequately wet in accordance with EPA NESHAP requirements (40 CFR 61.150). Verify waste packaging and other waste disposal requirements with the landfill that will receive the asbestos waste. Pre-labeled asbestos disposal bags should be used for asbestos waste disposal where possible, appropriate and permissible. Disposal bags should be collapsed by evacuating the air from the bag with a HEPA vacuum in the work area or enclosure. Once collapsed, twist the bag to form a neck and wrap it tight with duct tape. Fold neck of bag over to form a loop, then again wrap duct tape around neck and loop.

Asbestos waste is then placed into a second disposal bag and sealed as described above. All waste should be labeled as required by federal, state and local regulations.

