



## UNIVERSITY OF SOUTH CAROLINA NEGATIVE EXPOSURE ASSESSMENT

ACTIVITY	CUTTING INTO WALL SURFACES CONTAINING ACM (DRYWALL/JOINT COMPOUND)
DATE ESTABLISHED	1/15/13
LAST REVISION	8/4/15

### BACKGROUND

Exposure to asbestos can occur when asbestos containing materials (ACM) are disturbed in a manner that causes asbestos fibers to be released into the air. Airborne fibers can be inhaled, where they can be deposited into the lungs, causing a variety of health effects such as lung cancer, asbestosis and pleural mesothelioma.

OSHA has established a Permissible Exposure Limit (PEL) for asbestos fibers 0.1 fibers/cc, expressed as an 8 hour time weighted average. The 30 minute excursion limit has been established at 1.0 fibers/cc.

### ACTIVITY

This NEA establishes that under normal circumstances, employees cutting holes via manual methods into surfaces containing ACM will not be exposed to an airborne concentration of asbestos fibers that exceeds the OSHA PELs (8-hour or 30 min. excursion).

This NEA may be used for cutting small (not to exceed 12"x12") holes for the purpose of installation of electrical outlets, ductwork penetrations and other maintenance or renovation activities. It may NOT be used for work where the intent is to remove the material. The amount of waste material generated from work conducted under this NEA may not exceed that which may be contained in a standard asbestos waste bag.

Also of concern when cutting into ACM wall material is the potential for leaving behind asbestos containing dust and debris. The following work practices ensure that dust and debris are promptly and effectively cleaned.

16-hour OSHA Class III training is required for USC employees involved in this activity.

### EQUIPMENT LIST

<ul style="list-style-type: none"><li>• Barrier tape and asbestos warning sign</li><li>• Duct tape or painter's tape</li><li>• 6-mil poly sheeting</li><li>• Cloth rags or paper towels</li><li>• Manual drywall saw</li></ul>	<ul style="list-style-type: none"><li>• Box cutter</li><li>• (optional)</li><li>• Small spray bottle with amended water</li><li>• HEPA vacuum</li><li>• Asbestos waste bag</li></ul>
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### PROCEDURE

1. Submit notification to building occupants. (Columbia Facilities - use FMC Notify system)
2. Establish a "regulated area" with proper warning sign. Non-trained, non-authorized personnel may not enter the regulated area.
3. Do not eat, drink or smoke while working.
4. Remove any in-the-way furniture. Place a sheet of 6-mil poly on floor beneath work activity. Tape one end of poly to wall approximately 6 inches up. Poly should extend at least 3 feet away from wall on the floor and extend at least 3 feet on each side of the work area.



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5. Using the boxcutter, score perimeter of area to be cut.
6. Spray amended water onto score mark, ensuring that all material is wet.
7. Using drywall saw, cut along scored lines. Continue to apply amended water to the cut line as the cut is being made to minimize the amount of dust release. When cut is complete, place removed portion of wall into the waste bag.
8. *Alternative method* – You may also use a small oscillating tool to make the cut. If this method is used, a HEPA vacuum must be held directly at the cut point to capture resulting dust.
9. Wipe water and any excess debris from wall.
10. With wet paper towel or cloth rag, remove excess dust and debris from saw blade. Dispose of towel/rag in asbestos waste bag.
11. Before finishing job OR moving poly to another location, use HEPA vacuum to remove any dust/debris from poly sheeting. Remove any remaining material with wet rag/towel. Place rags/towels in asbestos waste bag.
12. When the job is finished and poly sheeting has been cleaned, carefully roll up sheeting and place in waste bag
13. Before leaving jobsite, inspect area to ensure no dust or debris has been left behind. If so, remove via wet wiping or HEPA vacuum as appropriate.
14. Close waste bag before removing from jobsite. Place bag in separate container on truck and deliver directly to HAZMAT office for proper storage and disposal.
15. Place waste bag in designated compartment on truck and transport directly to HAZMAT office. After dropoff, inspect inside of transport compartment and wet wipe any evidence of leakage.

### SUPPORTING DATA

DATE	LOCATION	DURATION (min)	EXCURSION (f/cc)	TWA (f/cc)	CUTTING METHOD
10/23/12	Hamilton College	39	0.062 *	0.005 *	Manual saw
11/8/12	Hamilton College	35	0.18 *	0.013 *	Manual saw
1/15/13	Longstreet Theater	37	0.13	0.010	Manual saw
2/7/13	1600 Hampton St.	30	0.11	<0.0087	Manual saw
1/21/15	Close/Hipp	30	0.047*	0.0029*	Oscillating tool

\*sample was subsequently analyzed via TEM, no asbestos structures detected