

STANDARD OPERATING PROCEDURE: # 420

Subject: Removal of Asbestos-Containing Flooring Material

Purpose and Scope: Asbestos-containing flooring material (i.e., floor tile, mastic, vinyl floor covering) can be found in many buildings on campus. OSHA concluded that employee exposures will consistently be below the Permissible Exposure Limits (PEL) during removal of intact flooring material when compliant work practices are followed.

Policy: Following the completion of approved training, the trained employee will be able to conduct small-scale floor tile abatement. Large-scale abatement must be performed under the supervision of an Ohio-licensed asbestos abatement contractor. The Environmental Health and Safety Offices (EHSO) shall be notified prior to any planned floor tile abatement, regardless of size, to perform routine monitoring and oversight, if necessary, and to make updates to Miami University's Asbestos-Containing Materials Inventory.

Procedure: Physical Facilities Department employees who have completed the eight-hour asbestos training course may remove flooring material when using the following compliant work practices:

1. Removal of Sheet Vinyl Floor Covering

- a. Before removal begins, the entire floor is vacuumed using a high-efficiency particulate air (HEPA) filter vacuum with a metal floor attachment and the flooring material is then wetted.
- b. The material is sliced with a sharp edged instrument, such as a utility knife, into strips approximately 4 to 8 inches wide.
- c. Each strip is rolled up tightly from end to end.
- d. As each strip is rolled up, a constant mist of amended water is sprayed into the point where the material separates from the backing.
- e. After a strip has been removed, it is placed in a heavy duty impermeable trash bag or other sealable leak-tight container.
- f. After three strips of flooring material are removed, any residual felt, after being thoroughly wetted, is removed with a stiff-bladed scraper. The felt scrapings are placed while still wet in a heavy duty, impermeable trash bag or other sealable leak-tight container.
- g. After all flooring has been removed and the entire floor has dried, it is vacuumed using a HEPA vacuum with a metal floor attachment.

2. Removal of Floor Tiles and Associated Adhesives

- a. Before removal begins, the entire floor is vacuumed using a HEPA vacuum with a metal floor attachment and tiles are then wetted unless heat is to be used in the removal process.
- b. Each floor tile is pried up individually using a stiff bladed scraper. If a tile does not release from the adhesive when the scraper is forced under the tile by hand, the scraper may be struck with a hammer to cause the tile to release and/or the tile is heated (e.g. using a hot air gun) to soften the adhesive and facilitate removal.

- c. Alternatively, without first prying up floor tiles using a scraper, heat is applied to the floor tile from a heat source (e.g. infrared heat machine) and the tiles are removed by hand or by using a scraper.
 - d. After the tile is removed, it is placed in a heavy duty impermeable trash bag or other sealable leak-tight container without further breakage.
 - e. As small areas of floor are cleared of tile, residual adhesive is removed -- to the extent necessary to prepare the surface for installation of new flooring material -- by being wetted and scraped using a stiff bladed floor scraper.
 - f. Adhesive residues are placed while still wet in a heavy duty impermeable trash bag or other sealable leak-tight container.
 - g. After all flooring has been removed and the entire floor has dried, it is vacuumed using a HEPA vacuum with a metal floor attachment.
- 3. A checklist of common tools used for removal of asbestos-containing flooring materials is attached.**

Jim Haley
Associate Vice President - Facilities

Sheet Vinyl Flooring Tools and Equipment Checklist

- Stiff-bladed scraper
- Utility or hook knife
- Tape to seal bags
- Protective clothing (optional)
- GFCI for vacuum (or other electrical)
- Wet/Dry HEPA filtered vacuum cleaner
- Leak-tight containers (6-mil plastic bags, drums, etc.)
- Wetting agent (dishwashing detergent, commercial surfactant, etc.)
- Garden sprayer
- Labels for Bags
- Plastic sheeting (optional)

Floor Tile and Adhesive Tools and Equipment Checklist

- Stiff-bladed scraper
- Utility or hook knife
- Tape to seal bags
- Protective clothing (optional)
- Plastic sheeting (optional)
- GFCI for vacuum (or other electrical)
- Wet/Dry HEPA filtered vacuum cleaner
- Leak-tight containers (6-mil plastic bags, drums, etc.)
- Wetting agent (dishwashing detergent, commercial surfactant, etc.)
- Garden sprayer
- Labels for Bags
- Gloves
- Safety glasses
- Heat gun (optional)
- Hammer

Responsible Person: Admin. Asst. to the Assoc. VP