

**ADVISORY NO. 3.9: OPERATIONS AND MAINTENANCE PROGRAM:
ASBESTOS CONTAINING MATERIALS CONTROL
AND ABATEMENT**

An Operations and Maintenance (O&M) program can be defined as a prepared plan of training, cleaning, work practices, and surveillance to maintain asbestos-containing materials (ACM) in good condition and to perform small-scale removal for maintenance purposes. The objectives of an O&M program is to minimize exposure of all maintenance personnel and building occupants to asbestos fibers.

To accomplish this, the University of Cincinnati has developed policies, procedures, and worker protection programs, which will meet the standards, and criteria required by federal law and provide protection for workers and the general University public.

The following are the objectives of this O&M program:

TYPES OF PROJECTS:

- a. Unlikely to involve ACM contact during work activity
- b. May cause accidental disturbance of ACM
- c. Small-scale, short duration maintenance or repair activity involving disturbance to ACM or removal of ACM (under 3 square and/or linear feet)

WORKER PROTECTION PROGRAM:

- a. EPA Worker Protection Rule 40 CFR 763.120-121
(www.epa.gov/opptintr/asbestos/asbreg.htm)
 - Operations & Maintenance Training or Asbestos Abatement Worker Training
- b. Medical Examinations
- c. Respiratory and Personal Protection Equipment
- d. Respirator Fit Test
- e. Visual Inspections and Air Monitoring

NECESSARY EQUIPMENT AND MATERIALS:

- Glove bags
- Spray pump bottle or bug pump sprayer (2-3 gal. size)
- Amended water (surfactant mixture BWE Superwett or Childers CP 225 Chil-Sorb)
- Encapsulant (BWE 3000 or Childers Chil-Abate CP 210)
- Wettable cloth
- Duct tape (3" wide)
- Six-mil polyethylene disposal bags (clear variety & pre-printed)
- Smoke tubes and aspirator bulb
- Bone saw (flexible)
- Utility knife w/retractable blade
- Wire cutters

- Tin snips (if aluminum jacket is present)
- Proper respirator (see Worker Protection section)
- Disposable coveralls w/head protection
- Small scrub brush (nylon bristles only)
- Stapler
- Disposable rags
- Asbestos warning signs and labels
- High Efficiency Particulate (Air) Filtered Vacuum (HEPA-Vac)
- Reinsulation material as needed

All workers who will be involved with disturbance of asbestos containing material (for example: spray-on fire proofing on ceilings and beams, thermal system insulation on pipes and boilers and ACM plaster in walls and ceilings, etc.) should have the minimum approved 2-day OSHA O&M or 3-day EPA Worker training.

Each employee involved shall be provided an annual comprehensive medical examination which shall include a chest x-ray (suggested every 3 years), a history to extract any symptoms of respiratory disease, and pulmonary function test to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV1.0).

Respiratory protective equipment shall be available to all workers who are involved with asbestos abatement and cleanup after passing a comprehensive medical examination. Air purifying respirator (half-mask), when the ambient asbestos concentration is "less than 10 times the permissible exposure shall be issued to all employees involved. All employees must have training in the proper use and limitations of respirators as well as a respirator fit test every 6 months.

Environmental Health & Safety will be responsible for all exposure monitoring to determine accurately the airborne concentrations of asbestos to which the worker may be exposed.

PROCEDURES:

Environmental Health & Safety must be notified of all real or potential asbestos O&M activities prior to removal. Environmental Health & Safety will then conduct a site assessment to determine if in fact friable asbestos or asbestos containing materials (ACM) are present.

All applicable procedures may be found in the University of Cincinnati Health & Safety Manual entitled: Advisories 3.0 - 3.8 Asbestos Program.

Proper glove bag technique and ceiling tile removal can be found in Advisory 3.3 and 3.4, respectively within the Health & Safety Manual. Procedures for the disposal of asbestos contaminated waste materials can be found under Advisory 3.5.

Environmental Health & Safety will be the official interface with University Facilities Management, or Design and Construction Departments on all asbestos related jobs. Environmental Health & Safety will be responsible for enforcing the policy and procedures related to the removal of asbestos, investigating and monitoring the project, and preparing or reviewing the procedures for the removal under the O&M program.

The following appendices must be used on every job dealing with asbestos. This format and associated information are used for developing the University Capital Plan, Record Keeping for General Counsel, and Risk Management for insurance purposes.

- a. Asbestos Checklist
- b. Building Profile (Available by Calling EH&S) at 6-4968)

c. Advisory 3.0 to 3.8