

<b>University of Pittsburgh Safety Manual</b>	<b>EH&amp;S Guideline Number: 01-007</b>	
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## ASBESTOS

The inhalation of asbestos fibers in excess amounts can lead to chronic lung disease. Knowledge of these health effects comes from studies of workers exposed routinely to high concentrations of airborne asbestos fibers. While asbestos can pose a health hazard when high concentrations of asbestos fibers are released into the air, intact asbestos materials do not pose a health risk. The presence of asbestos does not mean that the health of building occupants is endangered. A small disturbance of asbestos does not constitute a significant exposure risk.

Asbestos Containing Material (ACM) is properly managed through a comprehensive Operation and Maintenance (O&M) Program. The Department of Environmental Health and Safety (EH&S) manages the Asbestos Program and the O&M Program at the University.

### 1. THE OPERATIONS AND MAINTENANCE PROGRAM

The principle objective of the University of Pittsburgh's Operations and Maintenance (O&M) Program is to minimize the potential exposure of all faculty, students and staff to airborne asbestos fibers. The O&M program includes specific work practices and training to maintain asbestos containing materials (ACM) in good condition; ensure proper clean-up of asbestos fibers previously released; and assure compliance with all federal, state, and local regulations dealing with asbestos abatement, employee training, worker licensing, and waste disposal. **A copy of the entire O&M Program for asbestos is found on the EH&S website.**

### 2. RESPONSIBILITIES

- 2.1. An Asbestos Program Manager is appointed by EH&S to oversee asbestos-related activities on campus, including building inspections, and abatement actions.
- 2.2. The Asbestos Program Manager with the assistance of Facilities Management, Housing and Property Management will inform affected building occupants, contractors, and maintenance/custodial workers about asbestos hazards in their work areas and ensure that asbestos is properly identified, repaired, removed or encapsulated.
- 2.3. Maintenance Employee Responsibilities: Upon discover or suspicion of asbestos being present, stop work and immediately inform supervisor.
- 2.4. Maintenance Supervisor Responsibilities: Immediately inform EH&S of any asbestos discovery or suspicion on a jobsite and promptly implement site controls isolating employees from asbestos hazards when asbestos is discovered or suspected on a jobsite.

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### 3. INFORMATION, NOTIFICATION, LABELING

- 3.1. The long-term goal of the University is to maintain asbestos containing materials in a safe condition until its eventual removal. Established work rules and safety procedures must be followed by campus personnel who come in contact with asbestos containing material. To obtain information about asbestos concerns at the University, contact EH&S.
- 3.2. Signs are posted at the entrance to areas containing asbestos remediation activity to identify the presence of these materials beyond the posting. ACM labels and identification signs used at the University of Pittsburgh are worded as follows to comply with the OSHA regulations.

#### ACM SIGNS

#### ACM LABEL

<p><b>Danger Asbestos May Cause Cancer Cases Damage to Lungs Authorized Personnel Only</b></p> <p><i>(If in a regulated abatement area, add)</i></p> <p><b>Wear Respiratory Protection and Protective Clothing in this Area</b></p>	<p><b>Danger Contains Asbestos Fibers May Cause Cancer Causes Damage to Lungs Do Not Breathe Dust Avoid Creating Dust</b></p>
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### 4. TRAINING

- 4.1. General Awareness Training (Awareness) for Maintenance Employees  
Operations, maintenance and custodial staff involved in cleaning or repair tasks where ACM may be accidentally disturbed must take the Asbestos Awareness online training module on the EH&S website that includes:
  - Background information on asbestos;
  - Health effects associated with asbestos exposure;
  - Location and type of ACM identified at a facility;
  - How to control employee exposure;
  - Recognition of and response to ACM damage and deterioration;
- 4.2. Abatement Worker or Supervisor Training (DoLI Abatement)  
This training is intended for University of Pittsburgh employees and their supervisors who may conduct small-scale asbestos abatement projects. The training involves 32-40 hours of detailed training on all aspects of asbestos abatement. Provide the Asbestos Program Manager of all completion certificates.
- 4.3 All applicable training will be provided prior to initial assignment of ACM related tasks. Refresher training will be provided annually to designated personnel.

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## 5. MEDICAL SURVEILLANCE

Persons who are trained as an abatement worker or supervisor must be included in the University's Respiratory Protection Program and the Medical Surveillance Program for asbestos workers. The content of the medical exam as specified by OSHA is repeated annually.

## 6. WORK PERMIT SYSTEM

- 6.1. A permit system has been developed for all work involving the potential disturbance of ACM such as renovations, equipment maintenance or small-scale removal. This permit system is coordinated through the Asbestos Program Manager. All asbestos related work must be deferred until the asbestos hazard can be removed or abated by "appropriate" personnel, or it is determined that no ACM will be adversely impacted by the work.
- 6.2. Small-scale asbestos jobs done by in-house abatement workers can be completed upon notification and approval by the EH&S Department on the designated forms. One exception to this ACHD requirement for asbestos permits is the performance of work by the University's designated O&M Contractor.
- 6.3. Outside abatement contractors not under an O&M permit cannot perform ACM work at the University without first obtaining EH&S approval on the Allegheny County Health Department (ACHD) and Pennsylvania Department of Environmental Protection notification forms. A ten-day waiting period is usually required for all abatement works done at the University by outside contractors, unless an emergency condition can be demonstrated.
- 6.4. An ACHD "Asbestos Abatement Permit" is required on all large asbestos abatement projects. This permit application must be submitted when the quantity of ACM (friable or non-friable) exceeds 160 square feet. All applications for ACHD permits must be reviewed and signed by the University's Asbestos Program Manager, Construction Safety Manager, Industrial Hygiene Manager, or Assistant Vice Chancellor, Environmental Health and Safety.

## 7. WORK PRACTICES FOR MAINTENANCE ACTIVITIES

Routine maintenance activities in buildings containing asbestos materials have the potential to disturb ACM and raise the level of airborne asbestos fibers. Maintenance workers are cautioned against conducting any work in a manner that may disturb ACM. The management permit system for maintenance work shall be instituted to ensure that proper procedures are employed whenever there is a possibility of disturbing ACM or releasing asbestos fibers.

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## 8. WORK PRACTICES FOR RENOVATION AND REMODELING

### 8.1. Renovation

Building renovation, demolishing walls or replacing utility systems can involve disturbing ACM. Removal of all potentially affected ACM is recommended in these situations. Asbestos removal may be required by regulation if the amount of ACM likely to be disturbed is greater than 160 square feet or 260 linear feet. All procedures and precautions for asbestos removal required by OSHA, EPA, State, and County regulations are employed at the University. When considering a building renovation project, the location and type of ACM that may be affected is identified.

### 8.2. Remodeling

Where the remodeling involves direct contact with ACM (e.g., replacement of floor tile) all the procedures and precautions required by EPA, DEP, ACHD and OSHA asbestos regulations for removal must be followed.

## 9. PROCEDURES FOR FIBER RELEASE EPISODES

Persons finding suspect ACM should contact EH&S to identify the materials' asbestos content and the steps necessary prior to disturbing the material. Custodial and maintenance workers must report the presence of suspected asbestos debris, evidence of water or physical damage to ACM, or any evidence of a possible asbestos fiber release to the Project Manager, Facility Manager, and Building Coordinator as soon as possible. The Project Manager, Facility Manager, or Building Coordinator in turn should notify the Asbestos Program Manager.

9.1. The area shall be isolated as soon as possible after the suspected ACM debris is discovered. Once confirmed and where doors can seal the area, they must be locked from the outside (exit doors and corridors must remain in operation) and have signs posted to prevent unauthorized personnel from entering the work area.

9.2. The HVAC system shall be temporarily modified to prevent the distribution of asbestos fibers. If possible, doors, windows, registers, diffusers, etc. shall be sealed.

## 10. AIR MONITORING

Air monitoring of employees who may be exposed to asbestos during construction or maintenance activity is required.

10.1. Personnel air monitoring should be conducted at the initiation of each asbestos project or maintenance job that may expose workers to asbestos fibers. Additional monitoring requirements are based on the results of the initial monitoring or on changes to the routine for maintenance operations.

10.2. Daily air monitoring that is representative of each worker's asbestos exposure when inside regulated asbestos areas or working with asbestos outside containment is also required.

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- 10.3. If periodic air monitoring reveals that employee exposures are statistically below the OSHA 8-hour Time Weighted Average or below the Excursion Level of 1.0 f/cc for a 30-minute period, monitoring may be discontinued for those employees.
- 10.4. All asbestos air sample results used for exposure evaluations must be personal samples collected following procedures specified in Appendix A of the OSHA Construction Standard (29 CFR 1926.1101).
- 10.5. The EH&S Department shall notify affected employees and the department supervisor of their exposure results as soon as possible following receipt of the air monitoring test results.

## **11. PERIODIC SURVEILLANCE**

Knowledgeable personnel, such as building engineers, project managers, architects, custodial supervisors, trades supervisors and building coordinators should perform inspections of asbestos containing materials in their buildings, and report damaged materials to EH&S. EH&S personnel also assess potential ACM and frequently conduct a re-inspection of known ACM present on the campus (both friable and non-friable).

## **12. ASBESTOS DISPOSAL**

- 12.1. All asbestos-containing material and asbestos contaminated waste is packed in double 6 mil disposal bags that are labeled per applicable regulations before being removed from the work area. Transite sheets or ACM lined equipment is also double wrapped. Other ACM waste is placed in drums which are sealed and labeled for storage and transport.
- 12.2. All asbestos waste is transported via enclosed truck or other approved vehicle by a licensed carrier. Final disposal of asbestos occurs at an authorized landfill. No unauthorized persons have access to the waste material.