

LOS ANGELES COMMUNITY COLLEGES  
OFFICE OF THE CHANCELLOR  
ADMINISTRATIVE REGULATIONS

INDEX NUMBER B-4

REFERENCE :	TOPIC : Asbestos
ISSUE DATE : January, 1983	INITIATED BY : Business Services
CHANGES :	DATE OF CHANGES :

1. INTRODUCTION

a. Purpose. The purpose of these regulations is to acquaint District employees with the problems associated with asbestos located in our facilities and how to work in an environment where hazardous asbestos conditions may exist.

b. General

- 1) Asbestos is a product that has been used for many years in building trades industry. In most of the ways it has been used in our facilities it poses no threat or hazard to students or employees. Asbestos could be a health threat when small fibers of it become airborne and are inhaled by someone. When this occurs over a long period of time the individual may contract asbestosis, a chronic disease of the lungs which makes breathing more and more difficult. Breathing asbestos fibers can also cause lung or other forms of cancer.
- 2) Asbestos has been used in many products through the years and even occurs naturally in facing stone used on some buildings in California. In the most recent Federal regulations concerning the identification of an asbestos-hazardous area, friable materials are singled out for testing and identification. Friable relates to those construction materials that can be crumbled in the hand, such as asbestos insulation materials typically sprayed onto the structure of a building for its insulating and/or fire proofing properties. It does not pertain to such items as vinyl asbestos floor tile since the asbestos fibers are firmly bound or sealed into the tile.

3) The District has conducted surveys for friable materials in all our buildings. When found, they have been tested in a commercial laboratory for asbestos content. Most of the samples contain some percentage of asbestos content. Most of the samples were taken where pipe insulating materials were damaged and/or deteriorating, exposing the material to the air. As part of their regular maintenance program, the colleges repair these conditions. In such cases asbestos can safely be contained when the damaged insulation is resealed so that the asbestos is encapsulated. In more severe cases the insulation material may be removed and replaced with fiberglass or another safe insulating material.

c. Application. When a suspected or known hazardous asbestos condition exists, maintenance persons involved in correcting the condition or otherwise working in the asbestos environment must adhere to the following regulations. They provide the guidance and level of protection needed to assure safe working conditions. If there are any questions concerning the application of these regulations or the need for additional information concerning asbestos arises, contact the Safety and Occupational Health Specialist at the District Office.

## 2. EQUIPMENT FOR ASBESTOS REMOVAL

### a. Hand Tools

- 1) Utility knife or linoleum knife
- 2) Putty knife (one inch)
- 3) Planer blade with handle
- 4) Plastic mallet (10 oz.)
- 5) Hacksaw or coping saw (low profile)

### b. Area Protection

- 1) Polyethylene sheeting (painter's drop cloth)
- 2) Duct tape

### c. Wetting Equipment

- 1) Hudson sprayer (2.5 gallon, steel)
- 2) Hand-held spray bottle (one quart)
- 3) Calgon dishwashing powder
- 4) Water bucket

- d. Personal Protection
  - 1) Disposable coveralls with hood and feet covering
  - 2) Thin plastic or latex gloves
  - 3) 8710 or 9900 respiratory masks
  - 4) Safety glasses or goggles for overhead work - also hard hat
  
- e. Disposal Equipment
  - 1) Industrial vacuum with asbestos filter and bag
  - 2) 6 mil. Polyethylene bags stenciled with asbestos warning labels
  - 3) 6 mil. plain polyethylene bags
  - 4) Fiberboard drums with locking covers
  - 5) Disposable rags or woven paper towels
  
- f. Labels and Signs
  - 1) Warning signs to be posted at entrances to work area
  - 2) Adhesive labels for bags and drums
  
- g. Sealing of Exits or Entrances
  - 1) Arabol
  - 2) Canvas

3. **PROTECTION FOR EMPLOYEES WHERE LOOSE ASBESTOS IS PRESENT**

Maintenance employees have encountered situations which required them to work in areas where loose asbestos-containing materials are present. This is the case, for example, when carpenters or electricians have to work under some of the older buildings and in attics.

To protect all employees from unnecessary risks, the following precautions should be taken:

- a. The area should be wetted down, if possible.
- b. The work area and the access route(s) should be covered with polyethylene sheeting (visculline, for example).
- c. Employees should wear:
  - 1) Disposable coveralls
  - 2) Disposable respirators
- d. After completion of the work, before taking a break, or going to lunch, the disposable coveralls and disposable respirators should be removed and placed in the waste drum.

- e. After a break or lunch, new coveralls and a new respirator shall be used.
- f. No eating, drinking, or smoking shall be permitted in the asbestos work area.
- g. Employees must wash their hands before leaving the area.
- h. Employees' clothing worn under the disposable coveralls should be washed separately from other work clothes or the family wash.
- i. Large concentrations of loose asbestos-containing materials should be reported to the Building & Grounds Administrator or the Safety and Police Office.

4. **SMALL ASBESTOS REMOVAL JOBS**

a. Preparation

- 1) Bring all materials and equipment into the work area
- 2) Close access doors and post asbestos warning signs
- 3) Close off or shut off any ventilation to the outside
- 4) Remove street clothes and place in plastic bags. Seal bags and set aside in a safe, secure place.
- 5) Put on coveralls.

b. Preliminary Clean-up

- 1) Vacuum or brush up loose debris. If brushing, keep debris wet.
- 2) Wipe down with clean, wet rags.

c. Work-site Preparation

- 1) Cover areas below materials to be worked with plastic sheeting.
- 2) Seal covering with duct tape.
- 3) Place plastic disposal bags as near to the material as possible.
- 4) Wet floor and surrounding area with a fine spray.

d. Removal - Keep Material Wet at all Times

- 1) Wet down a small section of material (e.g., seam to seam).
- 2) Slowly cut through the outer covering and peel back to locate the seams.
- 3) Cut through at the seams.
- 4) Ease covering off and gently place in disposal bags.
- 5) Scrape and wet wipe residue from the pipe.
- 6) Seal the bags as they become filled and place in the drums.

e. Clean-up

- 1) Unseal and fold covering sheets inward. Place in disposal bags.
- 2) Wipe down the area with wet rags.
- 3) Rinse and dry hand tools.
- 4) Remove coveralls and gloves and place in disposal bags.
- 5) Washing hands thoroughly.
- 6) Remove respiratory mask and place in the disposal bags.
- 7) Wet down the open bags, seal and cover them, and place in a disposal drum.
- 8) Take street clothes from the plastic bags and dress.

f. Breaks and Lunch

- 1) Remove and discard disposable clothing.
- 2) Washing.
- 3) Use a new set of disposables and a new respirator when returning to work.

5. **LARGE ASBESTOS REMOVAL JOBS**

a. Site Preparation

- 1) Air samples shall be taken, using the "membrane filter method," to determine the level of asbestos contamination and the type of respiratory equipment to be worn.
- 2) The following staging areas shall be determined and installed (entry-exit):

- a) clean room
  - b) shower
  - c) contaminated area/change room
  - d) work area
- 3) Access to the staging area and work areas shall be sealed off by polyethylene barriers and provided with standard signs which read:
- CAUTION: ASBESTOS DUST HAZARD. AVOID BREATHING ASBESTOS DUST. WEAR ASSIGNED PROTECTIVE EQUIPMENT. DO NOT REMAIN IN WORK AREA UNLESS YOUR WORK REQUIRES IT.
- BREATHING ASBESTOS DUST MAY BE HAZARDOUS TO YOUR HEALTH.
- 4) Seal off work areas with double barrier of polyethylene sheeting so that one barrier remains closed at all times during entry and exit.
- 5) All openings such as doors, windows, and vents shall be sealed.
- 6) Filters which were part of the ventilation system shall be removed, sealed in polyethylene bags and disposed of as required (cf. disposal).
- 7) Walls and floors shall be wet cleaned and covered with polyethylene sheeting.
- 8) Movable furnishings and equipment shall be wet cleaned and removed from the work area and contaminated area.
- 9) Immovable equipment shall be wet cleaned, covered and sealed with polyethylene sheeting.
- 10) Fixtures and equipment attached to the asbestos covered surface shall be removed under the following conditions:
- a) Energized equipment shall be deenergized or set to zero energy (electrical systems shall be deenergized using standard "lockout" and tagging procedures).
  - b) Asbestos material around points of attachment shall be wetted.

- c) Fixtures and fasteners shall be wet cleaned and removed or disposed of in accordance with disposal procedures.

b. Entry Procedures

1) Clean Room

- a) Enter from the outside in street clothes.
- b) Remove street clothes and replace with authorized protective clothing and devices as specified under Work Procedures (1).

2) Contaminated Area

Additional protective devices such as hard hats, safety shoes, eye protection, etc., must be worn.

3) Work Area

Toilet facilities, either fixed or portable, shall be provided so the employee does not have to leave the work area and go through the exit and entry procedures.

c. Exit Procedures

1) Work Area

- a) Gross contamination and debris are brushed or vacuumed from clothing.
- b) Equipment and tools to be removed from the work area are wet cleaned.
- c) Exit is made so that one part of the double barrier is kept closed at all times.

2) Contaminated Area

- a) Disposable protective items are to be placed in clearly marked polyethylene bags sealed and placed in sealed drums for disposal.
- b) Non-disposable equipment and clothing should be removed and stored in separate lockers or similar holders.
- c) Respirators are removed immediately prior to entry into the shower.

3) Shower

- a) All employees shall shower thoroughly.
- b) Towels used for drying shall be collected in polyethylene bags, sealed and transported to special laundering facilities.

4) Clean Room

Employees shall change either into street clothes or, if reentering the work area, into new disposable coveralls and protective clothing.

d. Work Procedures

- 1) All persons entering the contaminated area shall wear:
  - a) approved respirators
  - b) disposable full body coveralls
  - c) disposable head covers
  - d) footwear which shall be left in the work area at all times until disposed of or specially cleaned at completion of the job
  - e) approved eye protection
  - f) protective headwear (hard hats), if overhead work is being performed
  - g) gloves, covered by disposable hand protection
- 2) No smoking, eating, or drinking shall take place in the contaminated area or work area.
- 3) All persons leaving the work area shall follow the "Exit" procedures.
- 4) Asbestos material shall be sprayed prior to removal with water mixed with a wetting solution as specified.
- 5) Work shall be done under the following restrictions:
  - a) in small sections
  - b) with two man crews
  - c) from staging platforms
- 6) At the end of each small section of removal, the material, while still wet, shall be:

- a) packed in polyethylene bags (6 mil.)
- b) sealed in the bags
- c) placed in 55 gallon steel or fiber drums
- d) Identified with a caution label and identification label on both bags and the drums

7) Contamination samples shall be taken in accordance with the following minimum requirements:

- a) within the work area, two samples per day
- b) outside the work area, one sample per day
- c) outside the building, one sample per day

e. Disposal and Clean-up

- 1) Debris shall be cleaned up after each small section has been removed.
- 2) Debris shall be deposited in polyethylene bags and placed in 55 gallon drums as specified under Work Procedures.
- 3) The outside of all drums shall be wet cleaned prior to removal from the work area
- 4) The drums which contain the debris must be delivered to an approved disposal site which meets the Federal Environmental Protection Regulations.

f. Decontamination of Work Area

- 1) All surfaces in the work area shall be cleaned with water after removal of the asbestos material has been completed.
- 2) After 24 hours, the work area shall again be wet cleaned and inspected.
- 3) Two air samples shall be taken within 48 hours of completion of the cleaning.
- 4) If the work area meets the air sample contaminating standards, all entrances and exits can be unsealed.
- 5) Plastic sheeting, tape and other disposable materials shall be disposed of in plastic bags and sealed drums as specified in the Disposal Procedures.

g. Protective Devices

- 1) Disposal protective coverings shall be placed in polyethylene bags and placed in drums, sealed as specified in the Disposal rules.
- 2) Non-disposable clothing and personal items shall be:
  - a) stored in special lockers or similar devices during the job;
  - b) sealed in special bags at the completion of the work;
  - c) identified as contaminated on the outside of the container; and
  - d) laundered or cleaned separately in a facility equipped to handle asbestos contaminated materials.
- 3) Respirators shall be:
  - a) left at the entrance to shower area at each exit;
  - b) picked up cleaned and wrapped by protected employees in a separate area; and
  - c) returned to the clean area by an outside employee.
- 4) Disposable parts of protective equipment (e.g., seat bands of hard hats, shoe inserts, glass holders, etc.), shall be removed from the equipment and disposed of along with the other disposable equipment or materials.