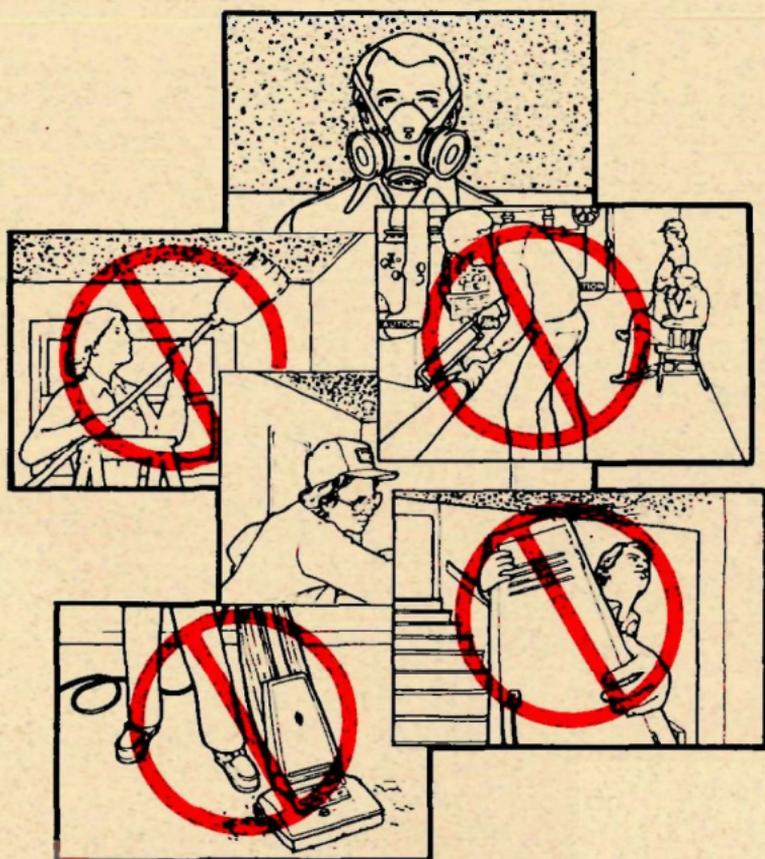


Office of Toxic Substances



# Asbestos in Buildings

## Guidance for Service and Maintenance Personnel



# Definitions

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Technical terms used in this booklet.

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**Asbestos:** A mineral composed of small, thin fibers. It is common in many building materials.

**Cementitious:** Materials that are hard and usually rough-textured or cement-like in appearance.

**Friable:** Materials that can be crumbled, pulverized, or reduced to powder by hand pressure.

**HEPA:** (High Efficiency Particulate Air.) A special type of filter that can trap asbestos fibers.

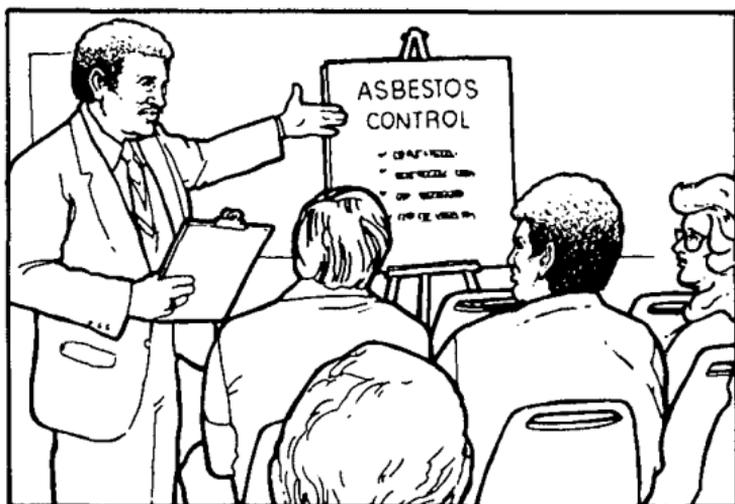
# Introduction

How to work safely in buildings that contain asbestos.

This booklet has been prepared by the United States Environmental Protection Agency to assist service and maintenance personnel in implementing special Operating and Maintenance procedures in buildings containing asbestos. The information is extracted from "Guidance for Controlling Asbestos-Containing Materials in Buildings" (EPA 560/5-85-024).

If you follow the steps in this booklet you will:

- Protect the health of people using the building
- Protect your own health.



If there is asbestos in your building, you should ask your supervisor for training on:

- Asbestos-related hazards
- How to avoid releasing asbestos fibers into the air
- How to avoid breathing asbestos fibers by proper use of respirators
- How to handle asbestos materials.

## Health Risks

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Avoid breathing asbestos fibers.

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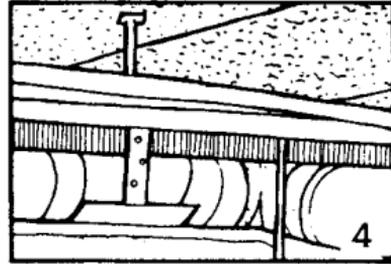
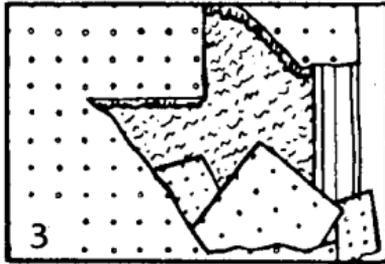
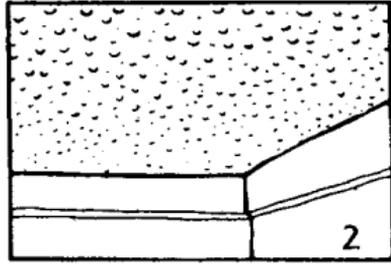
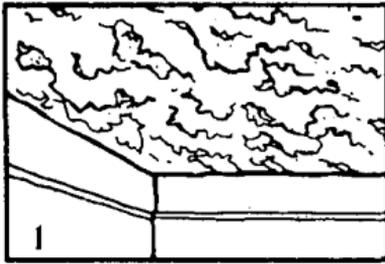
Breathing airborne asbestos fibers has been associated with

- Asbestosis—a serious lung disease
- Lung cancer
- Mesothelioma—a cancer of the lining of the lung or abdominal cavities.

Airborne asbestos levels in buildings are much lower than those in industrial workplaces where serious health effects have been observed. However, it is still important to minimize exposure to asbestos fibers, by following proper work practices.

# Recognizing Asbestos Materials

Become familiar with the types of materials that could contain asbestos.

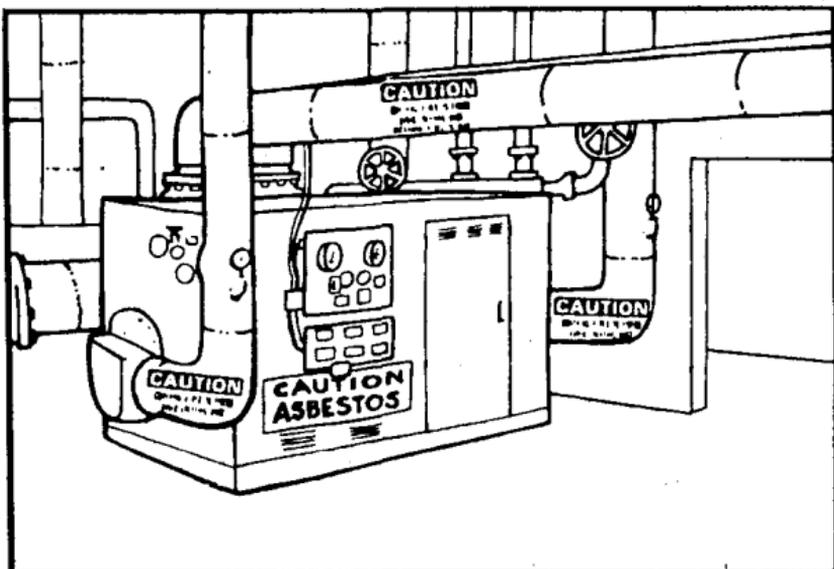


1. Friable, fluffy sprayed-on material (fireproofing).

2. Friable, cementitious sprayed-on or troweled material (acoustical plaster).

3. Perforated, nonfriable wallboard with friable sprayed-on material behind.

4. Friable fireproofing material on beam with pipe insulation below.



**Do not** overlook the boiler room

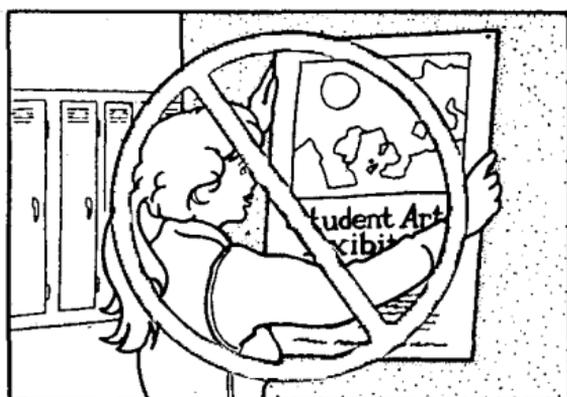
- Boilers and pipes are often insulated with asbestos materials
- The walls and ceilings of the boiler room may be covered with asbestos material.

## Disturbing Asbestos Materials

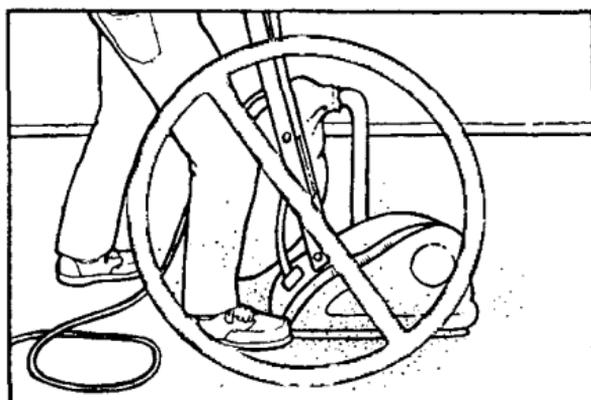
Avoid touching or disturbing asbestos materials on walls, ceilings, pipes or boilers.



- **Do not** drill holes in asbestos materials
- **Do not** hang plants or anything else from ceilings covered with asbestos materials.



- **Do not** pin or hang pictures on walls covered with asbestos materials.



- **Do not** sand asbestos floor tiles or backing material.

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Asbestos fibers can be released when the material is disturbed.

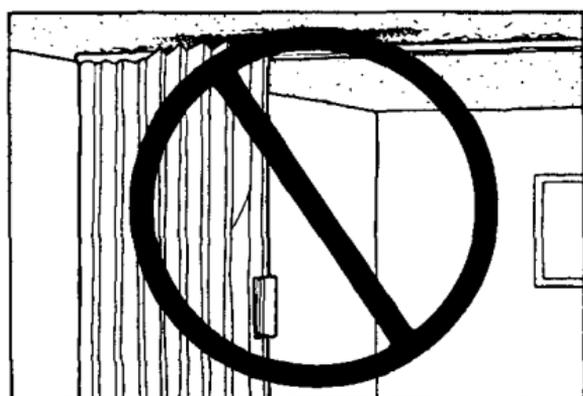
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- **Do not** damage asbestos material while moving furniture, etc.



- **Do not** disturb asbestos material when replacing light bulbs, etc.



- **Do not** allow curtains, drapes or dividers to damage asbestos materials.

# Cleaning

Improper cleaning can stir up asbestos fibers.

## NOT THIS



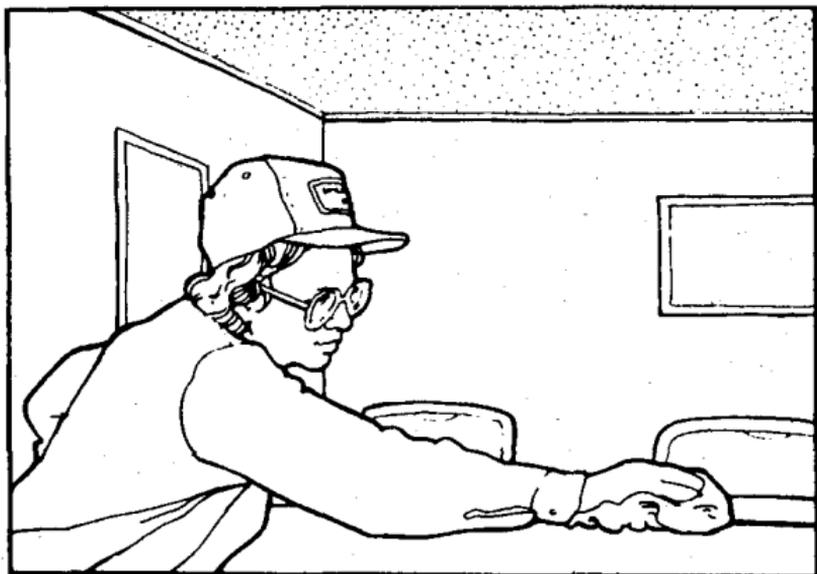
- **Do not** dust with a brush.



- **Do not** dry sweep floors.

Take care when cleaning rooms that contain asbestos materials.

## BUT THIS



- Dust with a damp cloth.

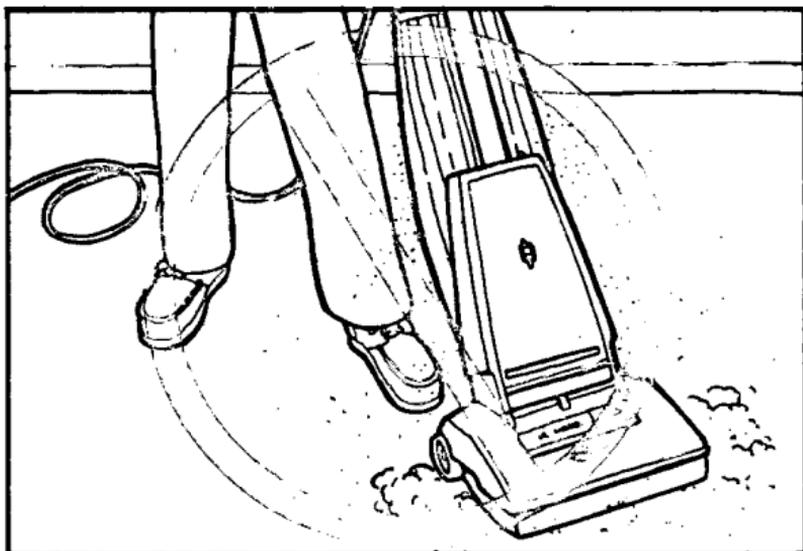


- Wet mop floors.

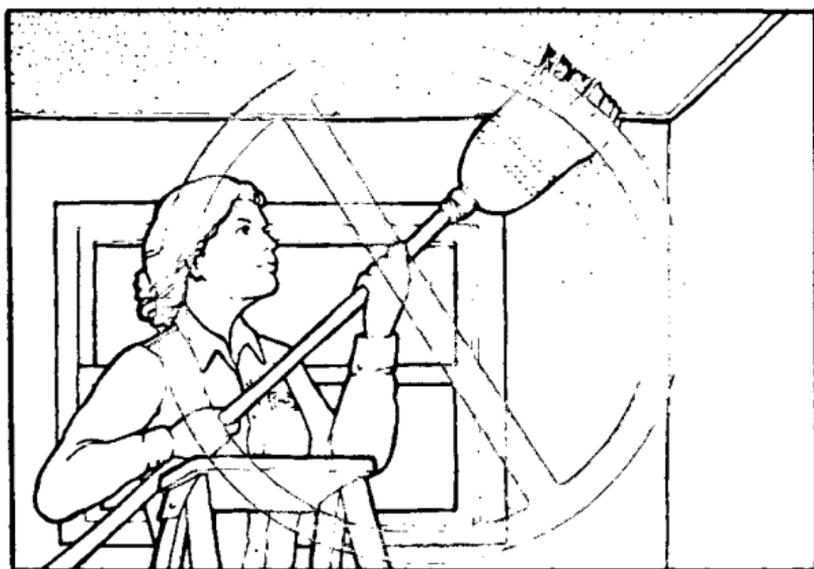
## Cleaning

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### NOT THIS

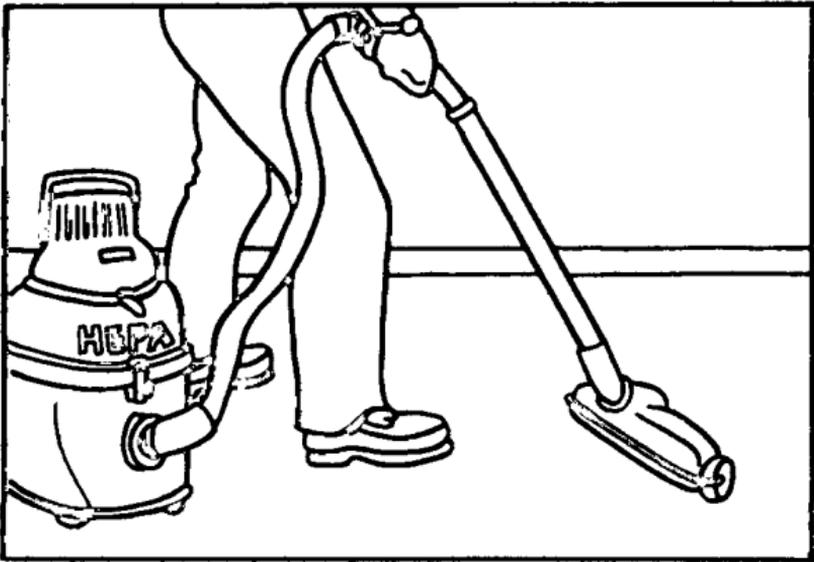


- **Do not** use an ordinary vacuum to clean up asbestos debris.

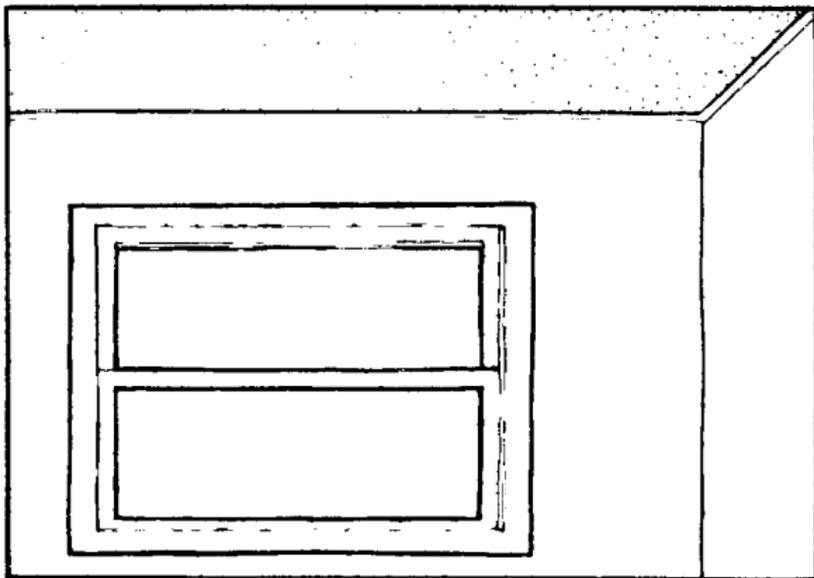


- **Do not** brush or sweep ceilings and walls covered with asbestos materials.

## BUT THIS



- Use only a special HEPA vacuum to clean up asbestos debris.



- Avoid touching or disturbing ceilings and walls covered with asbestos materials.

## General Maintenance

Take care when doing routine maintenance jobs around asbestos materials.

### NOT THIS

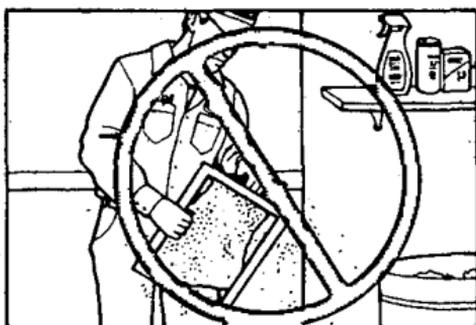


- **DO NOT** use a dust mask. It does not protect you against asbestos fibers.



If you have to remove ceiling tiles below asbestos material

- **DO NOT** start work without protection.
- **DO NOT** allow other people in the area.
- **DO NOT** leave dust and debris after you have finished.



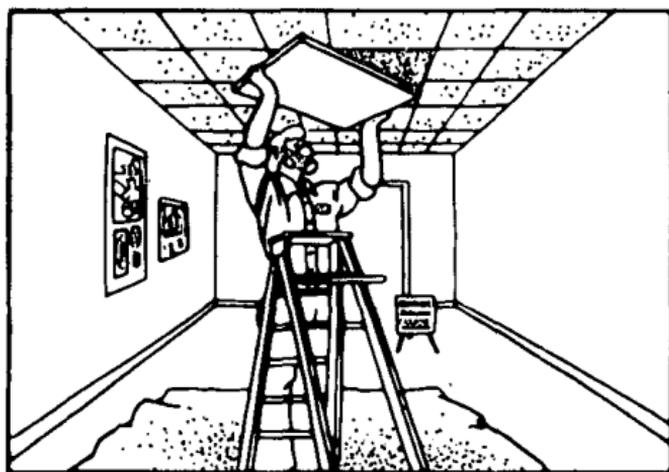
If you change filters in the Air Ventilation System:

- **DO NOT** remove the filter dry.
- **DO NOT** shake the filter.  
Asbestos fibers could be released.

## BUT THIS



- Wear a respirator that is approved for work with asbestos.



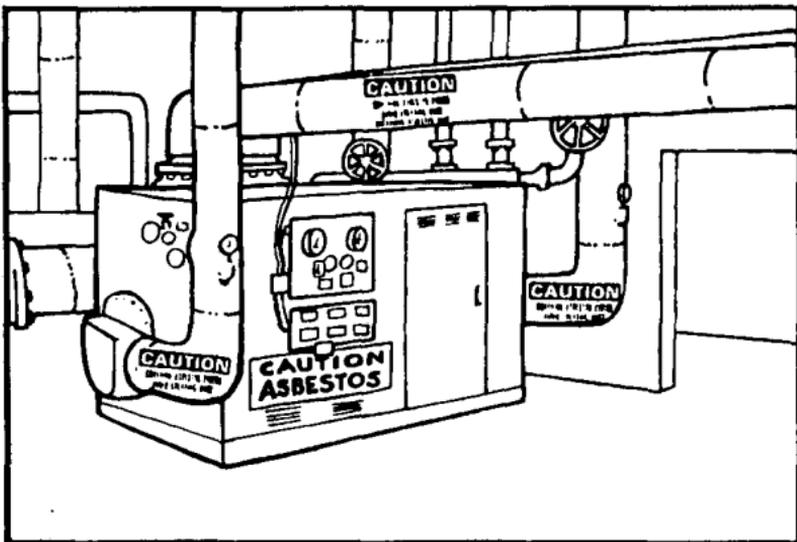
- Wear an approved respirator
- Clear the area of other people
- Use a drop cloth and clean up carefully after each job.



- Mist the filter with water
- Remove the filter carefully
- Dispose of properly.

## Boiler Room Maintenance

Take special care when working in boiler rooms



- Suggest that pipe insulation that contains asbestos be labeled with "CAUTION-ASBESTOS".

### NOT THIS



If you have to repair boilers or pipes that have asbestos insulation:

- **DO NOT** start work without protection.
- **DO NOT** allow other people in the area.
- **DO NOT** allow asbestos material to fall on the floor.
- **DO NOT** allow asbestos fibers to be released into the air.



- Report all damage you see to your supervisor
- Obtain instruction on how to repair damaged insulation.

### **BUT THIS**



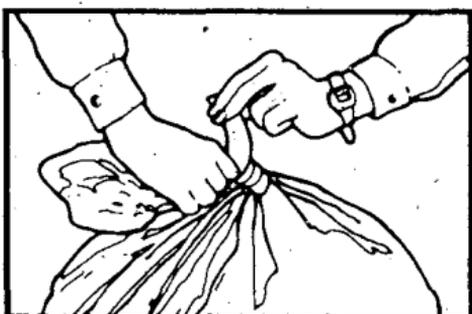
- Wear an approved respirator.
- Clear the area of other people.
- Use a drop cloth.
- Use a glove bag (Ask your supervisor for details).
- Clean up carefully.

## Disposal

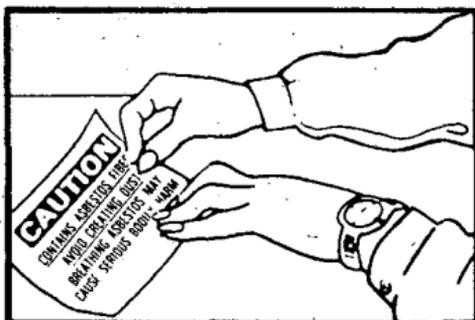
All cleaning materials and other asbestos waste must be disposed of properly.



- Place all dampened filters, cloths, mopheads and other asbestos wastes in double ply (6 mil) plastic bags.



- Seal the bag with heavy duty tape.



- Label each bag with a sign: "CAUTION: Asbestos Waste".



- Place the sealed and labeled bags with other solid waste material for pick-up and delivery to an approved waste disposal site
- Asbestos materials should be disposed of according to Federal and local regulations.

## Actions to Take

By taking the right action you can reduce the risk of exposure to asbestos

- Know where the asbestos is in your building
- If you find materials that could contain asbestos recommend to your supervisor that they be tested
- Ask your supervisor for training in proper ways to work around asbestos materials.



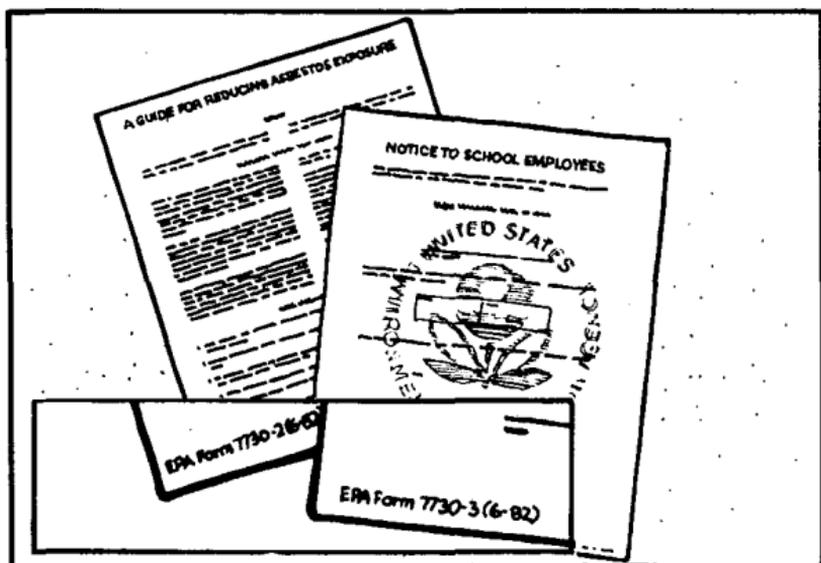
- If you see materials that have been disturbed report the damage to your supervisor.
- If the cleaning or maintenance in your building is not being done properly see that it is corrected.
- Keep on hand items useful for working on or around asbestos materials.

These include:

- disposal bags
- respirators
- tools for working on insulation
- disposable coveralls
- dropcloths
- water bottles for misting filters, etc.
- glove bags.

## Further Information

How to get more details.



- If you work in a school and have not received these documents—ask your supervisor for them.



If you need more information:

- Refer to EPA publications
- For copies of this and other EPA documents on asbestos call 800-424-9065 (554-1404 in Washington, D.C.)
- Contact your EPA regional asbestos coordinator for technical assistance and information on training.

## **EPA Regional Asbestos Coordinators**

### **Region 1 (617) 223-0585**

Maine  
Vermont  
New Hampshire  
Connecticut  
Massachusetts  
Rhode Island

### **Region 2 (201) 321-6668**

New York  
New Jersey  
Puerto Rico  
Virgin Islands

### **Region 3 (215) 597-9859**

Pennsylvania  
Maryland  
Delaware  
Virginia  
West Virginia  
District of Columbia

### **Region 4 (404) 881-3864**

Georgia  
Alabama  
Mississippi  
Florida  
North Carolina  
South Carolina  
Tennessee  
Kentucky

### **Region 5 (312) 886-6006**

Indiana  
Ohio  
Illinois  
Michigan  
Wisconsin  
Minnesota

### **Region 6 (214) 767-5314**

Texas  
New Mexico  
Oklahoma  
Arkansas  
Louisiana

### **Region 7 (913) 236-2838**

Kansas  
Missouri  
Nebraska  
Iowa

### **Region 8 (303) 293-1742**

Colorado  
Utah  
Wyoming  
Montana  
North Dakota  
South Dakota

### **Region 9 (415) 974-8588**

California  
Nevada  
Arizona  
Hawaii  
Guam, Am. Samoa

### **Region 10 (206) 442-2870**

Washington  
Oregon  
Idaho  
Alaska