

ASBESTOS CONTROL



I Purpose

To establish a uniform program to protect BWC employees working with or around asbestos.

II. Objective

- A) To prevent the development of asbestos related disease.
- B) To comply with OSHA standard 1910.1001, MIOSHA R2205 and all applicable EPA regulations.

III. Procedure

A) Identification of Asbestos Containing Materials

Each location should conduct a survey to determine the location of any asbestos-containing materials and their friability (Friable materials can be crumbled or reduced to powder by hand, ^{manipulation} releasing fibers to the atmosphere). (See Figure 1).

B) Decision Logic Process Process

To determined an appropriate course of action refer to the Decision Logic Tree (Figure 2) and the Comparison of Asbestos Control Alternatives (Figure 3).

C) Control Methods

1) Monitoring

Where controls (removal, enclosure or encapsulation) are to be used, industrial hygiene monitoring should be conducted before hand. These measurements could be personal, monitoring area monitoring, or both. This will give an estimate of past exposures and will set a quality control target for the contractor. The asbestos control contract should set a requirement that post-control monitoring should show asbestos fiber concentrations no higher than the precontrol monitoring or 0.05 fibers per cubic centimeter, whichever is lower.

2) Containment

For removal of friable asbestos more than 260 square feet, an enclosure of plastic 6 mils thick should be used to prevent contamination of the area around it. Attached to this enclosed work area should be a series of 3 small airlock rooms: a "dirty room" for removal of asbestos contaminated disposable clothing, a "shower room" for washing, and a "clean room" for changing clothes. The work area should be kept under negative pressure by means of an

exhaust vacuum equipped with HEPA filters. Asbestos fibers are too small to be trapped by ordinary filters. The exhaust ventilation rate shall be sufficient to provide for at least one air change every 15 minutes.

For removal of friable asbestos less than 260 square feet, it may be possible to prevent contamination of the surrounding area by removing all portable objects and covering the floor area with plastic sheeting. This method may be insufficient in areas of high useage or where air currents will disperse the fibers, excessively during removal.

For removal of asbestos on piping, use containment bags with sealed holes for hand access, such as the Profo-bag or Asbe-bag, or a full plastic containment area, whichever is more practical.

IV. OSHA Requirements

Refer to OSHA Standard 1910.1001 on Asbestos for requirements concerning methods of compliance, work practices, personal protective equipment, monitoring, signs and labels, recordkeeping, waste disposal and medical examinations.

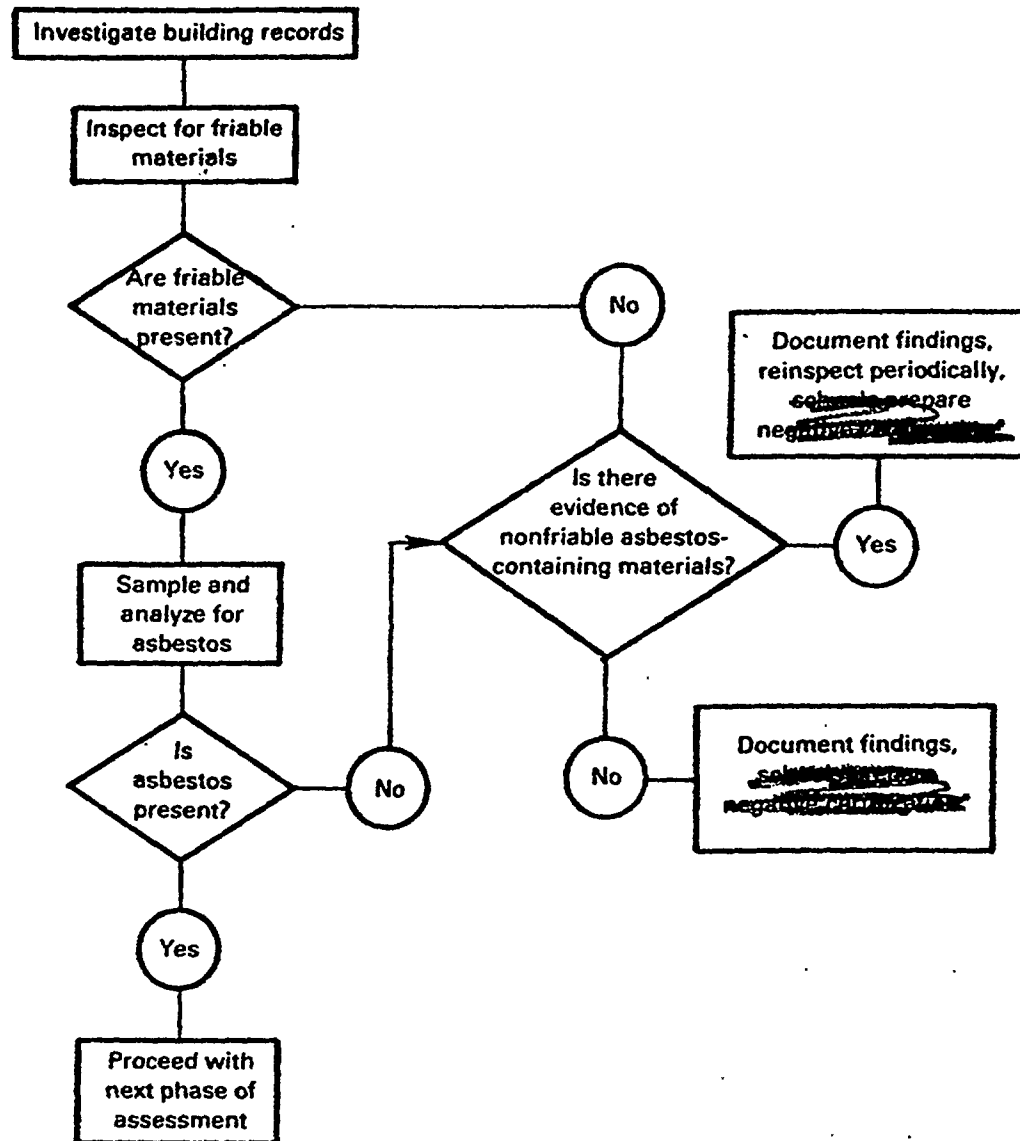
V. EPA Regulation and Notification

EPA has regulated asbestos under the National Emission Standards for Hazardous Air Pollutants (NESHAPS) as authorized by the Clean Air Act. This specifies the "no visible emissions" rule during asbestos removal.

Since regulation of the proper disposal methods for asbestos waste varies from state to state, you will need to contact your state's environmental authority for guidance.

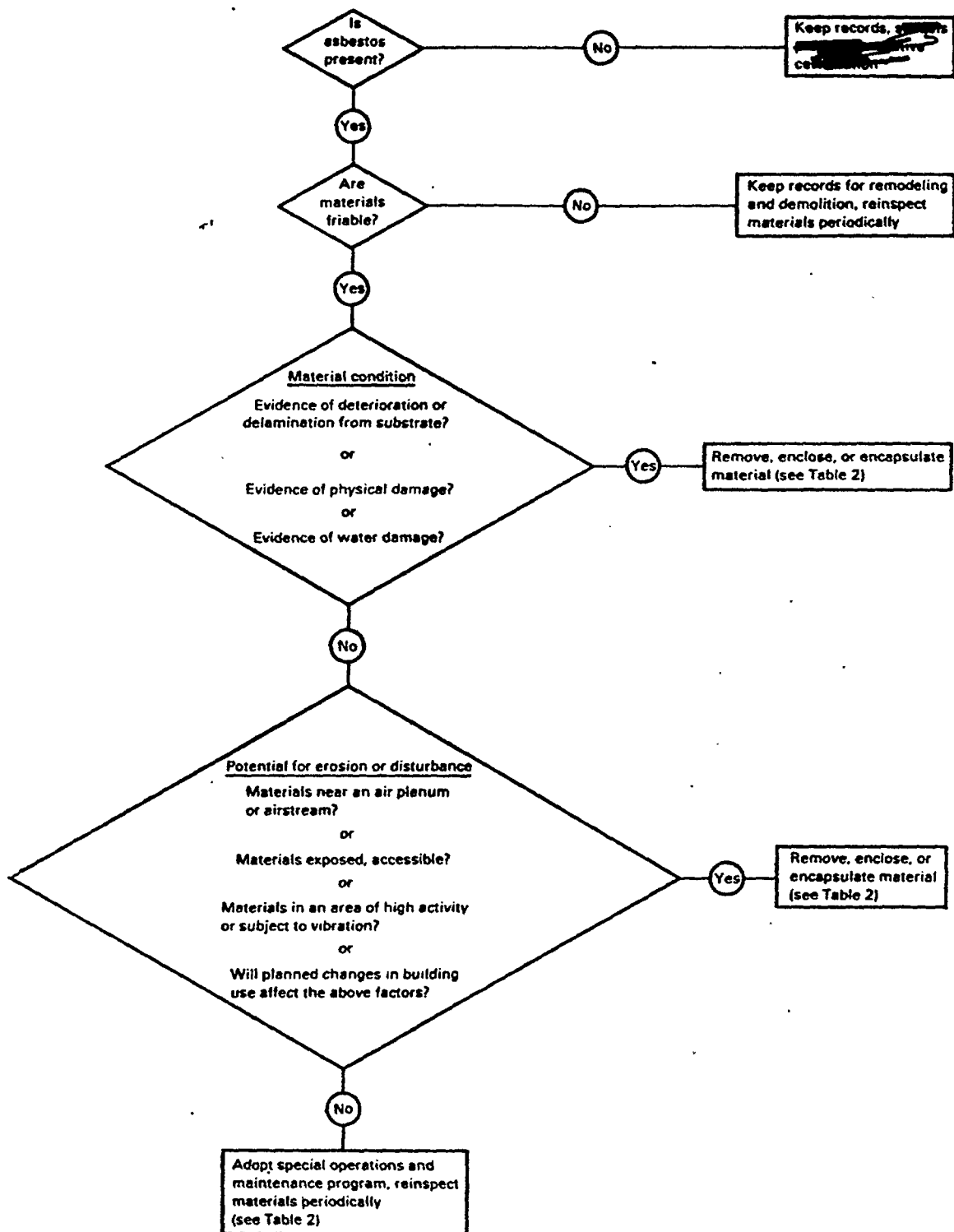
Also, federal and state EPA must be notified 20 days in advance prior to the start of asbestos removal. See attachment A for correct format.

Figure 4. Steps in investigating for the presence of asbestos.



~~Negative certification is a statement certifying that friable asbestos is present.~~

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Figure 2 A guide to selecting a course of action.



A statement certifying that no asbestos-containing materials are present.

Figure 3
Table 2. Comparison of Asbestos Control Alternatives

Method	Advantages	Disadvantages	Appropriate applications	Inappropriate applications	General comments
Removal	Eliminates asbestos source Eliminates need for special operations and maintenance program	Replacement with substitute material may be necessary Porous surfaces also may require encapsulation Improper removal may raise fiber levels	Always	Never	Containment barriers needed Worker protection required Wet removal is required for all types of asbestos, (amosite will not adsorb water or water with traditional wetting agents) Disposal may be a problem in some areas Unusual circumstances, complex surfaces, and the presence of utilities may require special removal techniques
Enclosure	Reduces exposure in the area outside the enclosure Initial costs may be lower than removal unless utilities need relocating or major changes Usually does not require replacement of material	Asbestos source remains and must be removed eventually Fiber release continues behind enclosure Special operations program required to control access to enclosure for maintenance and renovation Periodic reinspection required to check for damage Repair of damaged enclosure necessary Fibers released in dry form during construction of enclosure Long-term costs could be higher than removal	When materials need to be isolated from building occupants (e.g., exposed pipe) Disturbance or entry into enclosed area unlikely	Damaged or deteriorating materials causing rapid fiber release Water damage evident Damage or entry into enclosure likely Ceiling to be enclosed is low	Containment barriers needed Use of tools with HEPA-filtered vacuum attachments advisable Worker protection needed

Table 2. (continued)

Method	Advantages	Disadvantages	Appropriate applications	Inappropriate applications	General comments
Encapsulation	Reduces asbestos fiber release from material	Asbestos source remains and must be removed later	Material still retains bonding integrity	Material does not adhere well to substrate	Containment barriers needed
	Initial costs may be lower than removal	If material is not in good condition, sealant may cause material to delaminate	Damage to material not likely	Material is deteriorating or damaged, or damage is likely	Worker protection needed
	Does not require replacement of material	Periodic reinspection required to check for damage or deterioration	Material not highly accessible	Water damage is evident	Airless sprayers should be used
		Repair of damaged or deteriorating encapsulated surface required	Material granular, cementitious	Material is fibrous, fluffy	Damaged pipe insulation may be taped but not sprayed
Special operations and maintenance program plus periodic reinspection		Encapsulated surface is difficult to remove and may require dry techniques for eventual removal			Previously encapsulated materials may have to be re-encapsulated
		Long-term costs may be higher than removal			
	Lowest initial cost of any alternative	Asbestos source remains	As a temporary measure until another alternative is selected	Material not in good condition or has high potential for erosion or disturbance	Special building cleaning practices are essential
		Special operations program required to prevent damage of material during maintenance or renovation	Material in good condition and has low potential for erosion or disturbance		
		Periodic reinspection required to assess material condition and potential for erosion or disturbance	Material is nonfriable		

ATTACHMENT 18

EPA
~~10 Day~~ Notice Form

This form is to be filled in and filed with both state and regional EPA officials a minimum of twenty (20) days before start of the asbestos abatement contract.

Contractor _____

Name _____

Address _____

City _____ State _____ Zip _____

Phone (_____) _____

Building Owner or Operator _____

Name _____

Address _____

City _____ State _____ Zip _____

Phone (_____) _____

Building Information _____

Age of Building _____

Use of Building _____

Address _____

City _____ State _____ Zip _____

Amount of Asbestos (Ft) _____ Abatement Technique _____

Amount of Asbestos (Ft) _____ Abatement Technique _____

Contract Dates Start _____ Finish _____

Disposal Site _____

Site Name _____ Operator-Owner Name _____

Address _____ Address _____

City, State _____ City, State _____

Phone (_____) _____ Phone (_____) _____