



Contractor Requirements: Asbestos in Construction

A summary of the requirements for contractors during building demolition, renovation or projects disturbing asbestos containing materials.

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Topics Covered

- Requirements for Building Owners
- Requirements for Contractors
- Uses of asbestos
- Trace Asbestos regulations

Asbestos



Asbestos ore



Asbestos fibers

- Naturally occurring fibrous minerals
- Good tensile strength
- Flexible
- Heat resistant
- Electrical resistance
- Good insulation
- Chemical resistant

Because of these unique properties, asbestos was used extensively in variety of products.

Asbestos

- Asbestos containing material (ACM) is material containing more than 1 % asbestos.
- Asbestos includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos.
- Per OSHA letter of interpretation "the definition of asbestos does not have a one percent cut off: therefore, asbestos that is present in amounts less than, or equal to, one percent continues to be covered by the DOSH and OSHA standards.)

Building/Facility Owner Responsibilities

- Have a “Good Faith” inspection (GFI) done to determine presence, location, and quantity of asbestos containing material.
- Provide a copy of the GFI to any contractor working in your building.
- Inform employees and others who may be impacted.
- Permit only certified individuals to perform work that may release asbestos fibers into the air.
- Only use certified abatement contractors for demolition/removal of asbestos containing materials.
- Submit “Notice of Asbestos Abatement Project” to L & I when project involves 48 sq. ft. or 10 linear feet of pipe.

Contractor Responsibilities

- Retrieve a written report of the inspection findings from the owner for any structure you are performing work on.
- If a “Good Faith” inspection (GFI) has not been performed, have a GFI done to determine presence, location, and quantity of asbestos containing materials before initiating work.
- Provide GFI report to any sub contractors on the project.
- Make sure your employees know about any asbestos materials on the job site that they may contact or disturb.
- Report any suspect materials you discover to the building owner.
- If asbestos containing materials will be disturbed, use a certified abatement contractor for that portion of the work.
- Submit “Notice of Asbestos Abatement Project” to L & I when project involves 48 sq. ft. or 10 linear feet of pipe.

Contractor Responsibilities

- If you are conducting work in your own residence, which is not used for commercial purposes, then you are exempted from the general survey requirements.
- If you are a contractor working on a private residence, all of the asbestos regulations apply.
- If inspected by L&I DOSH while conducting a project on a private residence that impacts asbestos containing materials. Both the homeowner and the contractor can be cited. However, L&I DOSH is typically much harder on the contractor in terms of number of citations and total penalties.

Always get a “Good Faith” inspection.

Construction/Maintenance Activities

To avoid a situation illustrated in the photo below, the regulations cover any construction or maintenance activity releasing or likely to release asbestos fibers into the air including:

Renovation & Remodeling

Demolition

Asbestos removal and disposal

Covers work done in:

- Buildings
- Structures
- Mechanical piping equipment and systems
- Ships
- Other facilities



Loose asbestos debris from demolition project

"Good Faith" Inspection/Survey

Required for all construction and maintenance in buildings that may contain asbestos:

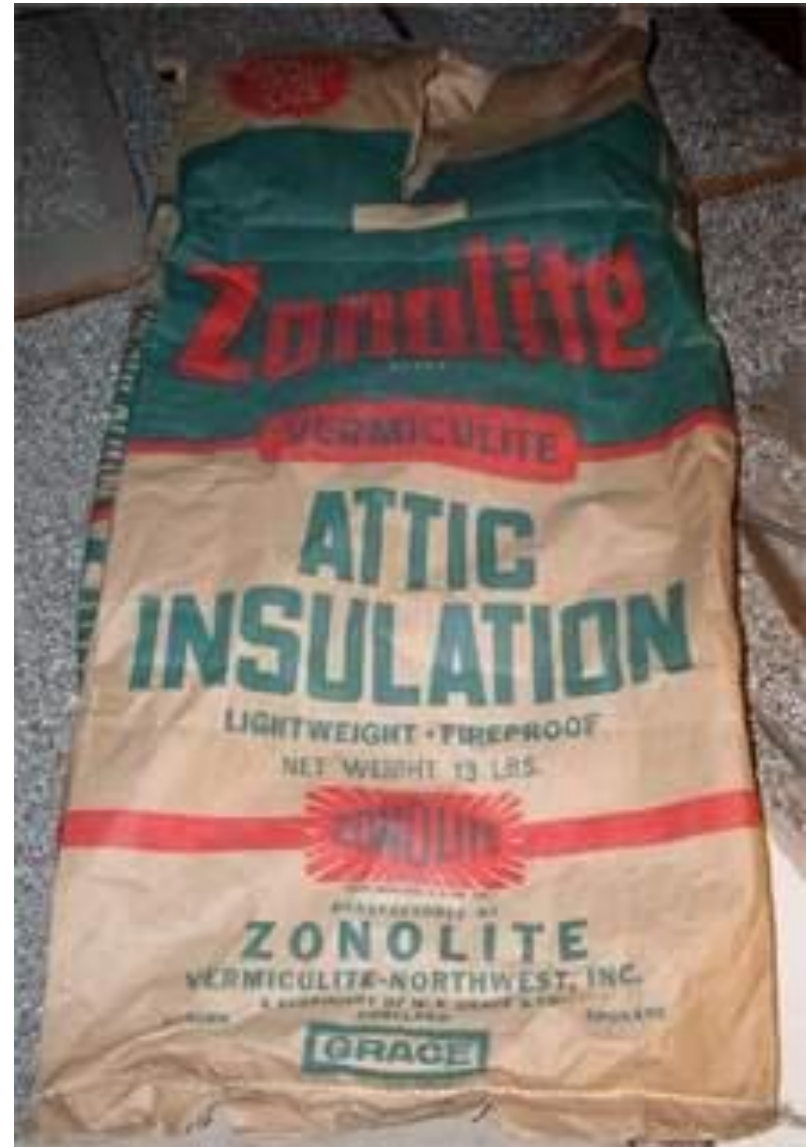
- Must be done by an EPA-accredited AHERA building inspector
- Documented written report
- Not required if assumed and treated as asbestos

- * Possible fines of \$600/day if not done or poorly done
- * Both building owner and contractor can be cited!



3-week project that disturbed asbestos, $\$600 \times 21 = \$12,600$ fine ☹️

Vermiculite – some products contained asbestos



Vermiculite insulation in attics. [Libby MT. Video](#)

Uses of Asbestos



Asbestos insulated pipe

Asbestos has been used for centuries, but greatly increased during and after World War II in ship insulation and the following:

- Pipe insulation
- Surfacing insulating materials
- Reinforcement of materials
- Fireproofing
- Acoustic and decorative plaster
- Textiles



Asbestos insulated boiler

Use has greatly declined since the late 1970's

Examples of Uses of Asbestos



Sprayed-on fireproofing material

These products may be found in homes and buildings constructed before 1981.

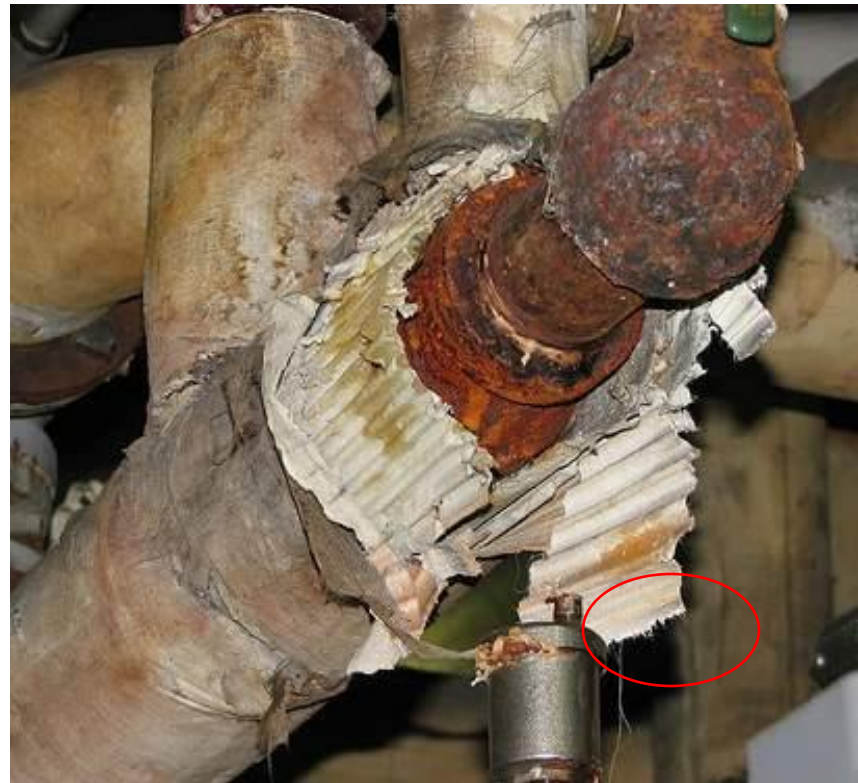


Sheet vinyl containing asbestos



Vinyl asbestos flooring

Damaged asbestos pipe insulation



This damaged pipe insulation is a health hazard to persons working around it, handling it or removing it. Asbestos fibers are visible on the torn edges.

Asbestos Mill Board



Asbestos millboard was used in the construction of walls and ceilings, especially around furnaces and wood-burning stoves, where insulation and fire protection was required. Most varieties of asbestos millboard typically contained between 80% and 85% asbestos.

Asbestos in gaskets and fabric



Asbestos fabric in HVAC system



Asbestos gaskets– may be round, flat or impregnated with waterproof sealant



Damaged asbestos gasket

Asbestos Roofing Material – used from 1920's to 1970's



**ASBESTOS CEMENT
ROOF SHINGLES AND
FELT (TAR PAPER)**



Cement-asbestos pipe (Transite)



ASBESTOS CEMENT
(AC) PIPE



ASBESTOS CEMENT
LAB FUME HOOD
EXHAUST DUCT



Cement-asbestos pipe, sometimes called Transite, was used underground and above ground in years past and may show up in pipe replacement jobs, building demolition jobs or excavations.

Asbestos Ceiling Tile - used until about 1980



Tile close-up

Usually white and in 1' by 1' or 2' by 4' sizes

Asbestos shingles and siding



Removal done correctly



Found in older houses – not to be confused with newer asbestos-free cement siding. There is little hazard unless disturbed. The top right-hand picture shows a siding replacement job with broken green asbestos shingles which would have released dust and fibers into the air if done incorrectly.

Asbestos “Popcorn” Ceiling Material

Popcorn ceilings (also known as acoustic ceilings) were popular in many homes built from the late 1950s through the early 80s.



Damaged ceiling material



Uncontrolled popcorn ceiling removal job

Not all popcorn ceiling material contained asbestos, but some did. Many types were more easily dislodged than others.

Asbestos in joint compound and plaster

Some joint compound contained up to 5% asbestos



Joint compound

See WRD 23.30 for guidance on employee exposure to joint compounds



Plaster with asbestos

Custodial/Light maintenance work

Housekeeping and building maintenance activities may expose workers to asbestos fibers if ACM/PACM is disturbed.

Activities of concern:

sweeping

vacuuming

cleaning

changing lights



Asbestos debris on floor



Damaged asbestos pipe insulation

Materials of concern:

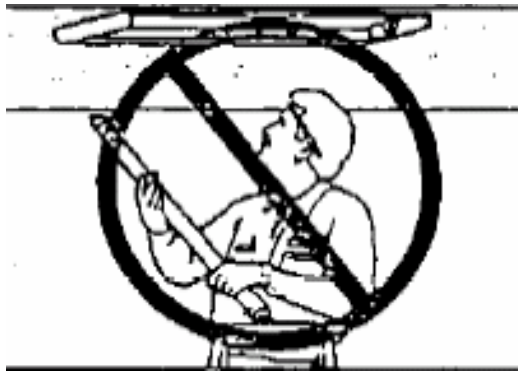
vinyl asbestos tile

popcorn ceiling

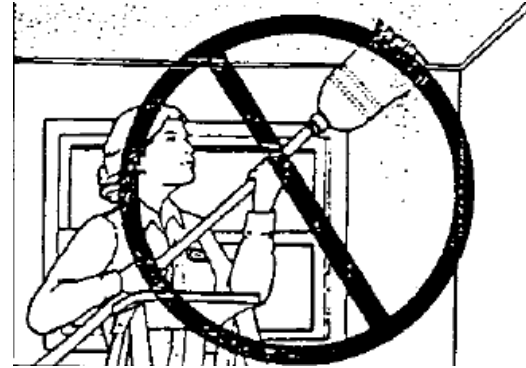
exposed piping

exposed fireproofing

Custodial/Light maintenance work



Disturb ACM when replacing light bulbs, etc.

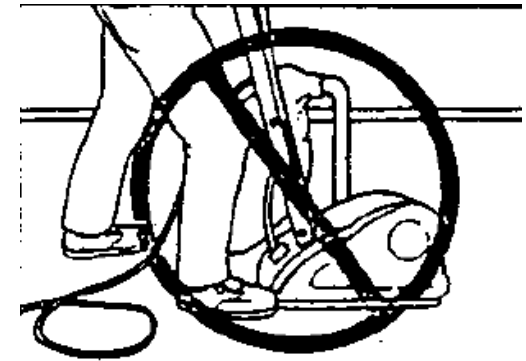


Dry dust or sweep surfaces, ceilings, walls, or floors

DO NOT:

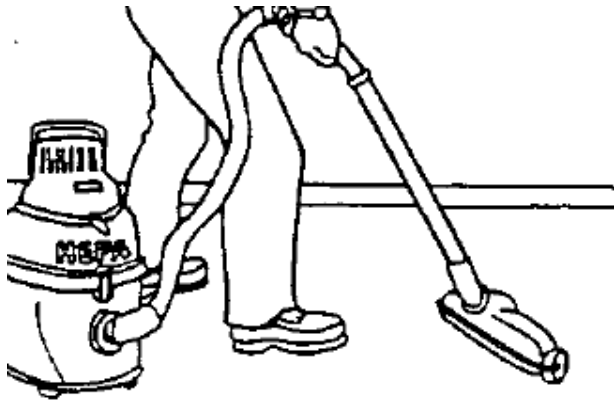


Pin or hang pictures, plants, or objects on walls or from ceilings covered with asbestos materials



Sand asbestos floor tiles or backing material

Custodial/Light maintenance work



Use only a HEPA-filtered vacuum to clean up asbestos debris

DO:



Dust with a damp cloth



Wet mop floors

Trace Asbestos (Asbestos \leq 1%)



Some of the asbestos requirements still apply to materials with \leq 1% asbestos.

Wet methods, HEPA vacuums, Prompt clean up and disposal

Competent Person - No set training requirements however the competent person must have appropriate knowledge and authority to take necessary action to ensure a safe workplace. *(CP responsibilities in WAC 296-62-07728 but are only specific to asbestos projects with ACM)*

Asbestos 2-HR Awareness Training for staff

Exposure Assessment & Monitoring - WAC 296-62-07709 If employees are exposed above the PEL or no NEA is performed, the following requirements apply:

- Personal protective clothing and equipment
- Regulated area
- Respiratory protection & program
- Medical surveillance (if EE's exposed above PEL 30 or more days in a year)

Trace Asbestos (Asbestos \leq 1%)



Prohibited Activities

- High-speed abrasive disc saws that are not equipped with point of cut ventilator or enclosures with HEP A filtered exhaust air.
- Compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air.
- Employee rotation as a means of reducing employee exposure to asbestos.

Things that are NOT required by regulations

- Labeled bags
- Worker, supervisor or contractor certification
- Pre-demolition removal requirement of asbestos less than or equal to 1 %.
- Notification to Labor & Industries or local clean air agency such as Puget Sound Clean Air Agency

OSHA letter of interpretation concerning requirements when working with materials that contain less than or equal to 1 percent asbestos can be found at, <https://www.osha.gov/laws-regs/standardinterpretations/1999-08-13-1>



Questions??

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