

ASBESTOS REGULATIONS and HOW THEY IMPACT YOU



COLORADO REGULATION No. 8,
PART B – ASBESTOS



Overview

- What is Asbestos and what are the Hazards of Exposure?
- What are Suspect Materials?
- What constitutes Demolition or Renovation?
- When are Inspections/Abatement required?
- Notifications

Why is Asbestos a Hazard?

- There are three main diseases related to asbestos exposure:
 - Asbestosis is a scarring of the lungs, which prevents oxygen from passing through the lung tissue.
 - Lung cancer.
 - Mesothelioma is a cancer of the lining of the chest cavity.
- Typically, asbestos related diseases have a long latency period. After exposure to asbestos, symptoms may not appear for 15 to 50 years.



When is Asbestos a Hazard?

- Asbestos is not always an immediate hazard. In fact, if asbestos can be maintained in good condition, it is recommended that it be left alone and periodic surveillance performed to monitor its condition.
- It is only when asbestos-containing materials (ACM) are disturbed or the materials become damaged that it becomes a hazard. When the materials become damaged, the fibers separate and may then become airborne.



For ALL Projects

- Buildings of *any* age may contain asbestos; even those newly built may have asbestos containing materials.



Trigger Levels

- Single-Family Residential Dwelling
 - 50 linear feet on pipes, or
 - 32 square feet on other surfaces, or
 - The volume equivalent of a 55-gallon drum
- Residential portions of multi-unit dwellings such as apartment buildings, condominiums, duplexes and triplexes are also considered to be, for the purposes of Regulation No. 8, Part B, single-family residential dwellings; common areas such as hallways, entryways, and boiler rooms are public and commercial space.



Trigger Levels

- All Areas Other Than Single-Family Residential Dwellings
 - 260 linear feet on pipes, or
 - 160 square feet on other surfaces, or
 - The volume equivalent of a 55-gallon drum

Except

- **Exception:** Buildings, or those portions thereof, that were constructed after October 12, 1988 shall be exempt from this inspection requirement if an architect or project engineer responsible for the construction of the building, or a state certified inspector, signs a statement that no ACM was specified as a building material in any construction document for the building or no ACM was used as a building material in the building.

Suspect Materials - Thermal System Insulation (TSI):

- PIPES, BOILERS, and FURNACE DUCTS insulated with an asbestos blanket, cardboard, packed material or asbestos paper tape. These materials may release asbestos fibers if damaged, during repair operations, or if removed improperly.

Pipe Insulation



Piping and Insulation



Duct Tape





Vermiculite Insulation





Suspect Materials – Surfacing

- SOUNDPROOFING OR DECORATIVE MATERIAL sprayed or troweled on walls and ceilings. Loose, crumbly, or water-damaged material may release fibers. So will sanding, drilling, scraping or cutting the material.
- PATCHING AND JOINT COMPOUNDS for walls and ceilings, and TEXTURED PAINTS. Sanding, scraping, drilling or cutting these surfaces may release asbestos.

Drywall/Sheetrock/Gypsum



Acoustical Ceiling



Plaster





Suspect Materials - Miscellaneous

- **RESILIENT FLOOR TILES** (vinyl asbestos, asphalt, and rubber), the backing on **SHEET VINYL FLOORING** (linoleum), and **ADHESIVES** used for installing floor tile. Sanding and cutting the tile or mastic can release fibers. So may scraping or sanding the backing of sheet flooring. Simply pulling loose the vinyl wear layer, separating it from the fibrous backing, may release copious amounts of fibers.

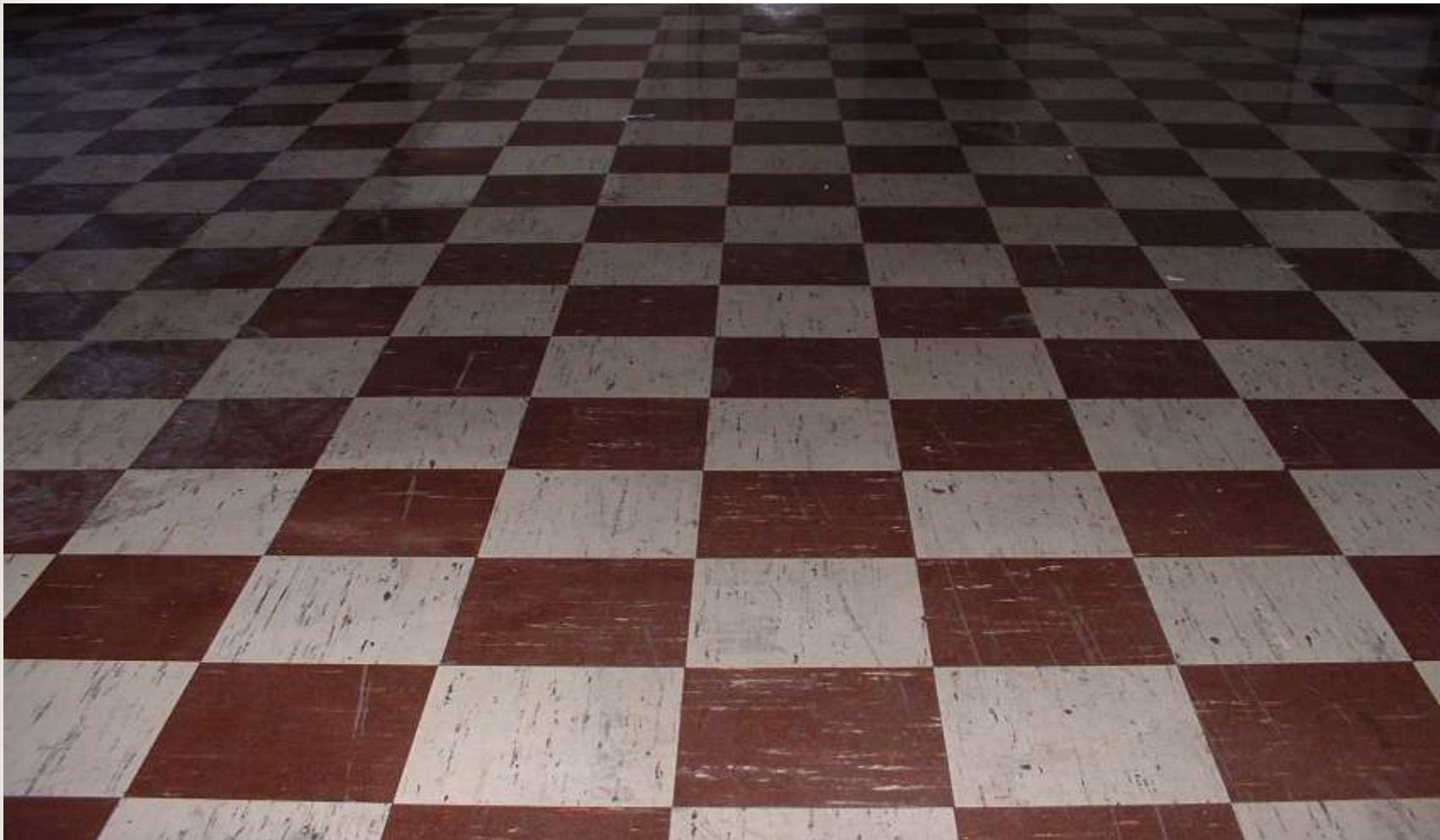


Suspect Materials - Miscellaneous

- CEILING TILE (2' x 4', 12" x 12", or any size). Any disturbance (movement) or removal may cause release of fibers.



Floor Tile



Suspect Materials - Miscellaneous

- CEMENT SHEET, MILLBOARD, and PAPER used as insulation around furnaces and wood burning stoves. Repairing or removing appliances may release asbestos fibers. So may cutting, tearing, sanding, drilling, or sawing insulation.



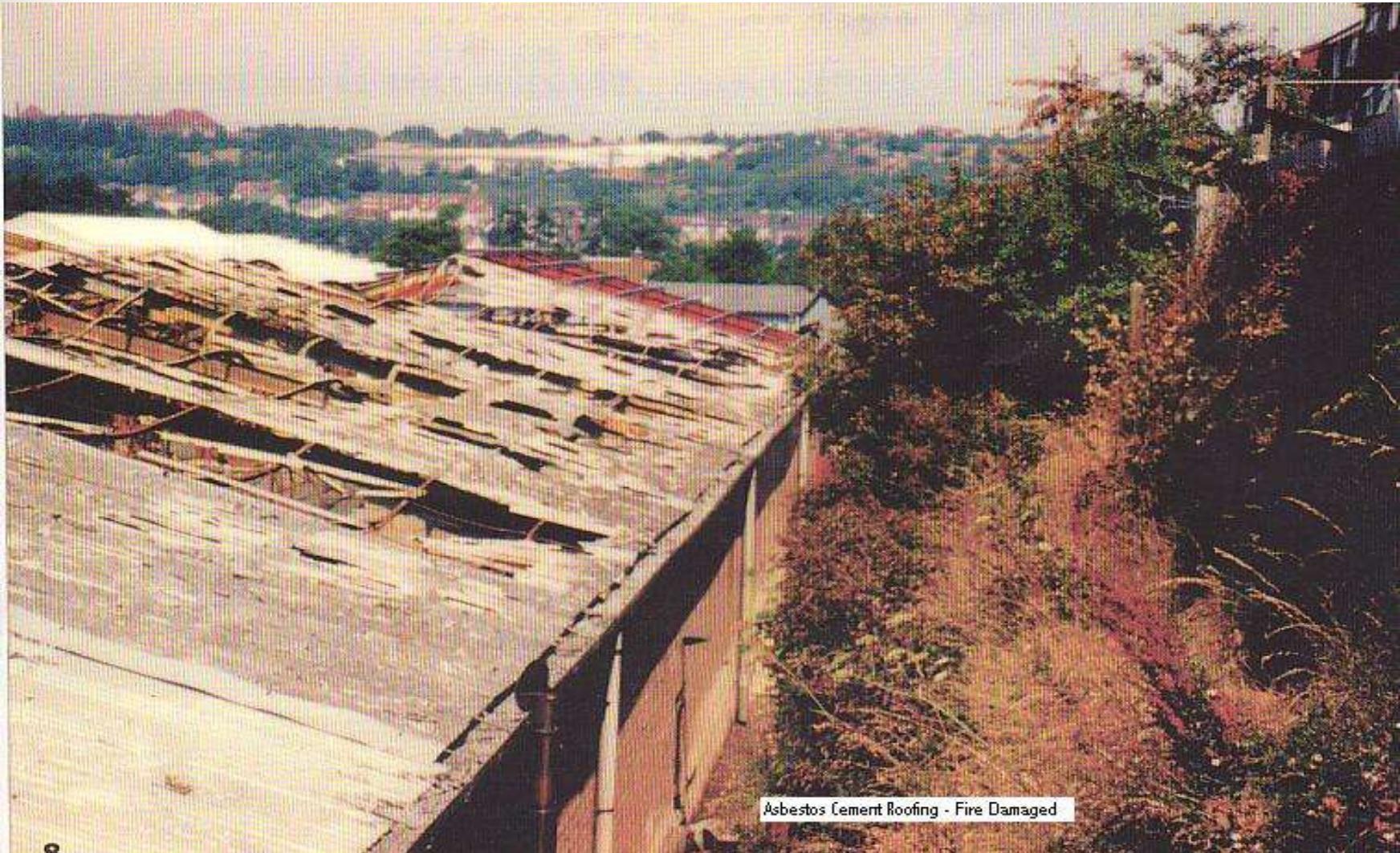
Suspect Materials - Miscellaneous

- ASBESTOS CEMENT ROOFING, SHINGLES, and SIDING. These products are not likely to release asbestos fibers unless sawed, drilled, or cut.

Asbestos Siding

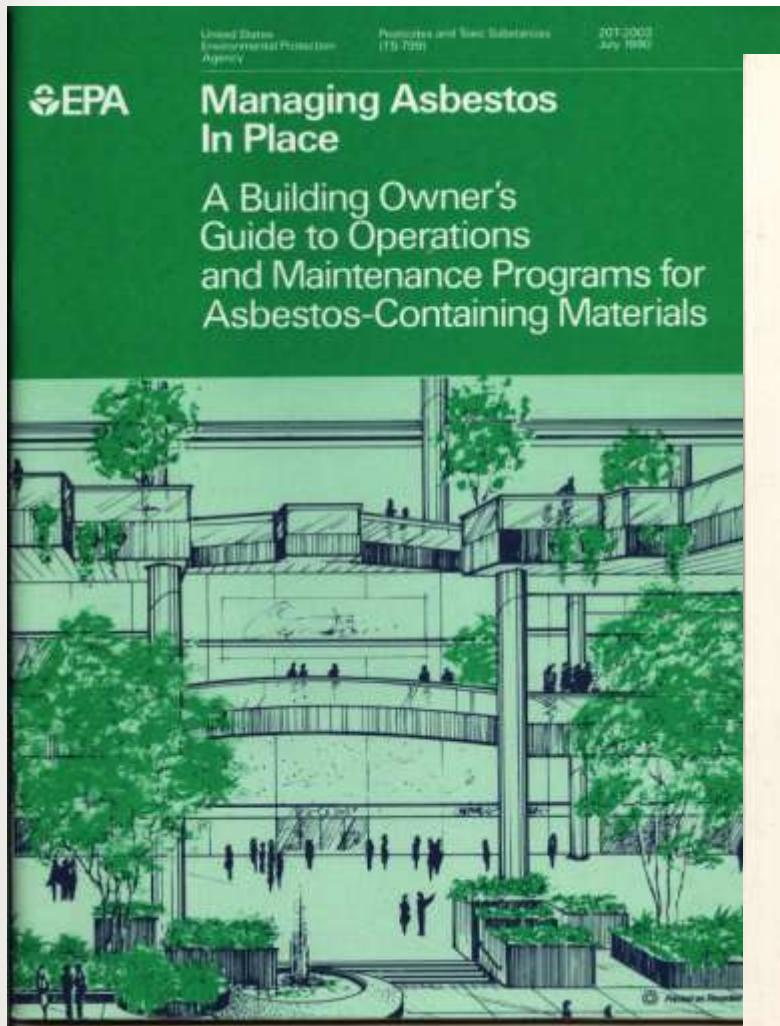


Asbestos Cement Roofing



Asbestos Cement Roofing - Fire Damaged

EPA “Green Book”



APPENDIX G:

Sample List of Suspect Asbestos-Containing Materials

- Cement Pipes
- Cement Wallboard
- Cement Siding
- Asphalt Floor Tile
- Vinyl Floor Tile
- Vinyl Sheet Flooring
- Flooring Backing
- Construction Materials (floor tile, carpet, ceiling tile, etc.)
- Acoustical Plaster
- Decorative Plaster
- Textured Paint/Caustics
- Ceiling Tiles and Lay-in Panels
- Spray-Applied Insulation
- Blown-in Insulation
- Fireproofing Materials
- Taping Compounds (thermal)
- Packing Materials (for wallcover penetrations)
- Laboratory Hoods/Bible Tops
- Laboratory Gloves
- Fire Blankets
- Fire Curtains
- Elevator Equipment Panels
- Elevator Brake Shoes
- HVAC Duct Insulation
- Boiler Insulation
- Breccia Insulation
- Ductwork Flexible Fabric Connections
- Cooling Towers
- Pipe Insulation (corrugated steel, block, etc.)
- Heating and Electrical Ducts
- Electrical Panel Partitions
- Electrical Cloth
- Electric Wire Insulation
- Caulkbeads
- Roofing Shingles
- Roofing felt
- Base Plaster
- Thermal Paper Products
- Side Doors
- Ceiling/Putties
- Adhesives
- Wallboards
- Joint Compounds
- Vinyl Wall Coverings
- Spackling Compounds

NOTE: This list does not include every product/material that may contain asbestos. It is intended as a general guide to show which types of materials may contain asbestos.

APPENDIX H:

References

- USEPA. 1984. U.S. Environmental Protection Agency: *National Emission Standards for Hazardous Air Pollutants*. 40 CFR 61, April 5, 1984.
- USEPA. 1985. U.S. Environmental Protection Agency: *Managing airborne asbestos following an asbestos action*. Washington DC: USEPA, EPA-600/4-85-045 ("Silver Book")
- USEPA. 1985. U.S. Environmental Protection Agency: *Asbestos in buildings: Sampled sampling scheme for asbestos materials*. Washington DC: USEPA, EPA-540/5-85-030A. ("Pink Book")
- USEPA. 1985. U.S. Environmental Protection Agency: *Guidance for controlling asbestos-containing materials in buildings*. Washington DC: EPA-540/5-85-024. ("Purple Book")
- USEPA. 1985. U.S. Environmental Protection Agency: *Asbestos in buildings: Guidance for service and maintenance personnel*. Washington DC: EPA-540/5-85-018. ("Green Book")
- USEPA. 1986. U.S. Environmental Protection Agency: *Assessment of asbestos-containing fiber insulation*. Washington DC: Technical Bulletin No. 288-2.
- USEPA. 1986. U.S. Environmental Protection Agency: *A guide to respiratory protection for the asbestos abatement industry*. Washington DC: EPA-540/5/86-001.
- US Dept. of Labor: OSHA Regulations. 29 CFR 1993.1001—General Industry Asbestos Standard and 29 CFR 1993.10—Construction Industry Asbestos Standard. June 1990, Amended, September, 1994.
- US Dept. of Labor: OSHA Regulations. 29 CFR 1910.134—*Respiratory Protection Standard*. June, 1974.
- Reyes, Dale L. and Chesser, Jean. 1989. *A Guide to Monitoring Asbestos Asbestos in Buildings*. Environmental Sciences, Inc., 105 E. Speedway Blvd., Tucson, Arizona 85705.



Inspectors – Who?

- Individuals performing these inspections shall be (ASBESTOS) Building Inspectors certified in accordance with Reg. No. 8, Part B. The inspection, sampling, assessments, and analysis of the suspect materials must be performed as required in paragraph IV.
- A certified asbestos building inspector is a person who has taken a three day asbestos inspector class, has passed a test administered by CDPHE and received a certificate issued by CDPHE.



Inspectors (continued)

- It does not include a residential home/building inspector unless they are certified by CDPHE (Reg 8 III.A.1.a).
- To prevent conflicts of interest, the Asbestos Building Inspector must be independent of the General Abatement Contractor (GAC) who will be removing the ACM.



Now What? (continued)

- Any person intending to either abate asbestos containing materials in any amount greater than the trigger levels, or demolish a facility shall, on a form supplied by the Division, provide a written notice of the intent to conduct asbestos abatement or demolition.
 - 10 Working day waiting period
- Hire a General Abatement Contractor



SUMMARY

- Buildings of any age can contain asbestos containing materials.
- Be sure to have a building inspected by a State of Colorado certified asbestos Building Inspector before any work which will disturb greater than the trigger levels.



SUMMARY (continued)

- Catastrophic events may trigger a host of requirements under the regulation:
 - Inspection
 - Delineation of a spill
 - Abatement



What Can You Do To Help?

- Please let people know that an asbestos inspection is required before work that impacts greater than the trigger levels of a suspect material.



Contact Information

- Colorado Department of Public Health and Environment, Air Pollution Control Division, Indoor Environment Program, Asbestos/Indoor Air Quality Unit
- 303-692-3100
- asbestos@state.co.us
- www.cdphe.state.co.us/ap/asbestos/index.html