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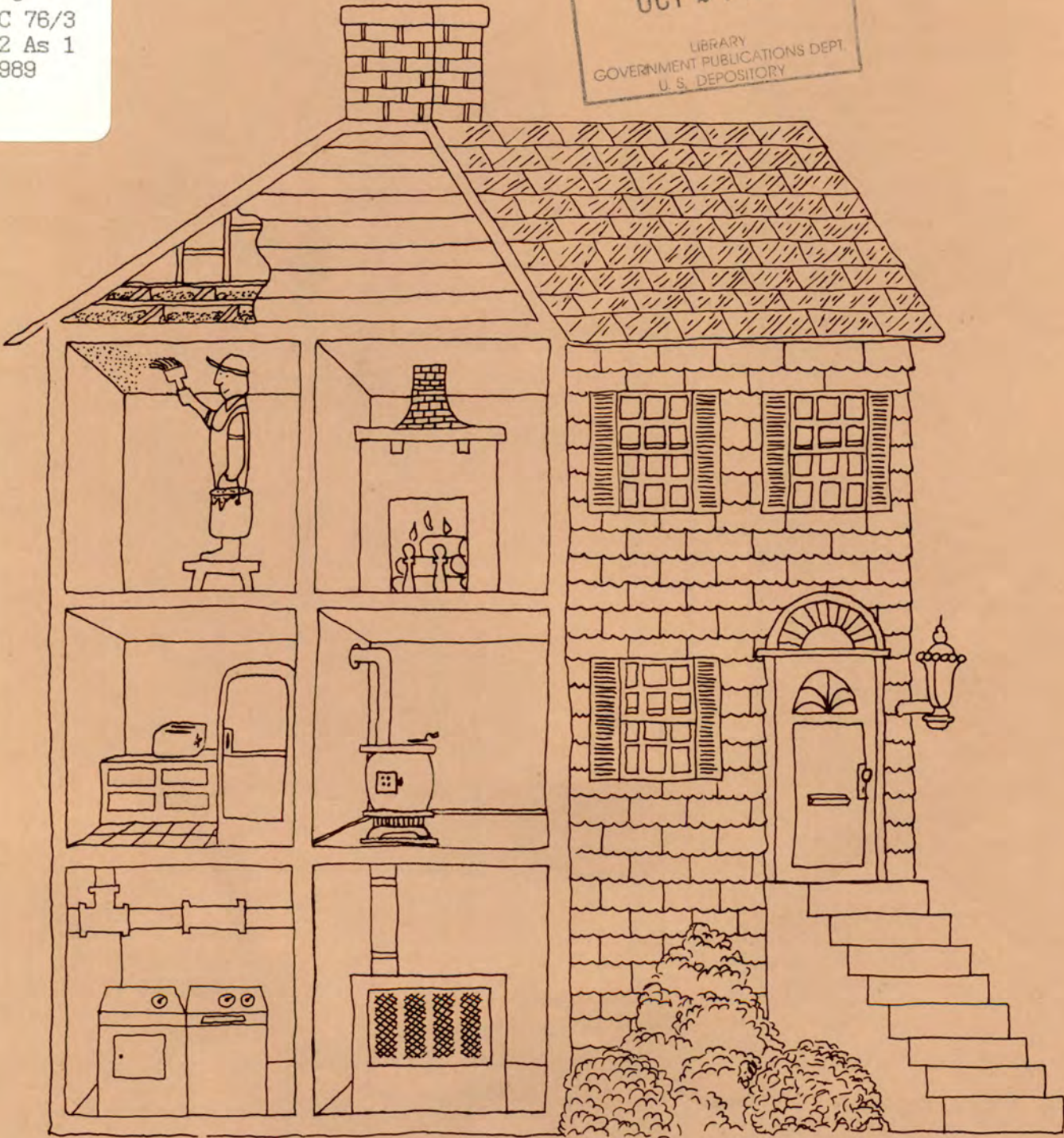
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Asbestos in the Home

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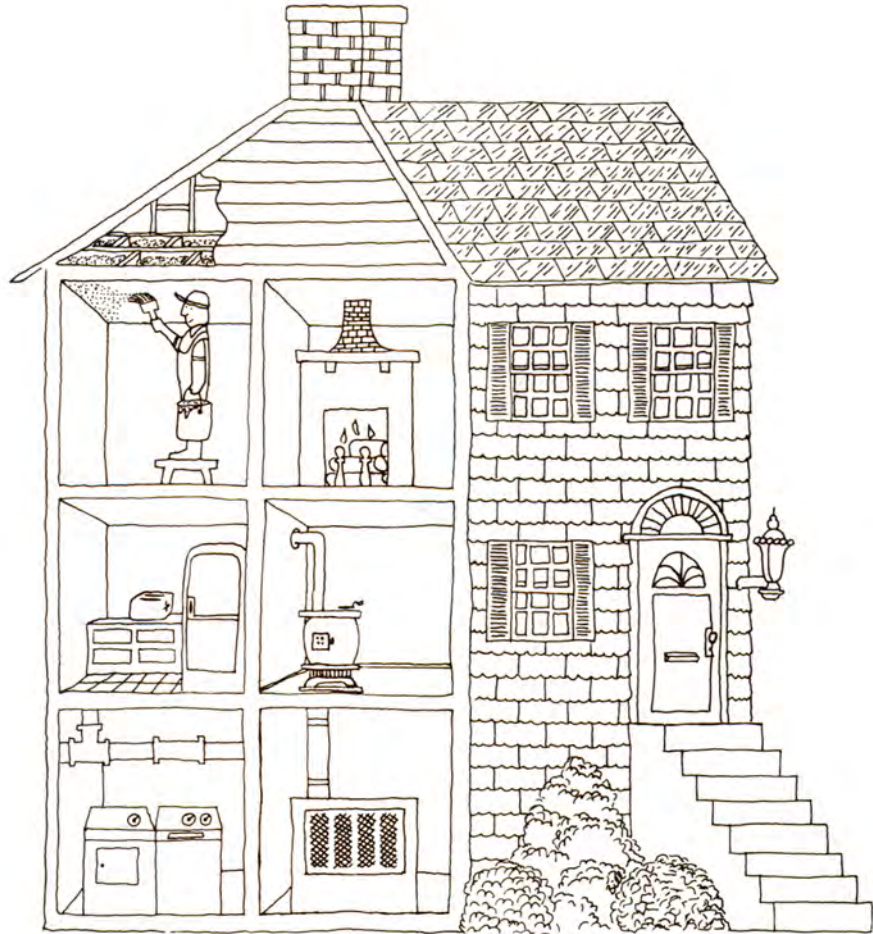
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Asbestos in the Home



Revised – August 1989

U.S. Consumer Product Safety Commission
U.S. Environmental Protection Agency

For sale by the Superintendent of Documents, U.S. Government Printing Office
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Introduction

This booklet was prepared by the U.S. Consumer Product Safety Commission (CPSC) and the Environmental Protection Agency (EPA). Its goal is to help consumers understand the possible hazards of exposure to asbestos and materials containing asbestos in the home. The booklet describes asbestos, where it may be found in the home, and the possible dangers of exposure to asbestos. The Table of Contents lists the questions answered in this booklet. If you have additional questions, you may call the toll-free number listed at the back of the booklet.

The Federal government is concerned about asbestos-containing products in the home because asbestos fibers may be released if these products are disturbed, as when a floor is sanded or a furnace removed. Recent studies have shown that the mere **presence** of asbestos-containing material in homes and buildings does **not** result in increased exposure of occupants. In contrast, disturbing or removing asbestos-containing products can result in release of asbestos fibers and must only be done under carefully controlled conditions by qualified and experienced persons.

This booklet will help you identify what materials in your home may contain asbestos. Leave these materials alone. Do not allow anyone to encourage you to remove materials that are in good condition simply because they contain asbestos. If left undisturbed, these materials do not present a threat to you or your family. When asbestos-containing materials must be disturbed because of renovation or remodeling, this booklet explains where to get expert advice and assistance. In general, the best advice is, "Leave asbestos-containing materials alone."

EPA and CPSC have already taken several steps to reduce your exposure to asbestos:

- In 1973, EPA prohibited the spraying of asbestos-containing materials for insulation, fire protection, and soundproofing.
- In 1975, EPA prohibited the use of asbestos for pipe covering if the material is easily crumbled after it dries.
- In 1977, CPSC banned two asbestos-containing products: patching compounds and artificial fireplace emberizing materials (ash and embers) containing respirable asbestos.

- In 1986, CPSC required labeling of products containing asbestos. These products include asbestos paper and millboard; asbestos cement sheet; dry-mix asbestos furnace or boiler cement; asbestos wood/coal stove door gaskets; asbestos laboratory gloves and pads; asbestos stove mats and iron rests; central hot-air furnace duct connectors containing asbestos; and bulk asbestos fibers. Asbestos products not labeled according to these provisions will be considered misbranded and thus may be subject to enforcement action by the Commission.
- In 1989, EPA announced a phased-in ban of most asbestos products, culminating in 1996.

If asbestos building materials must be removed from a home, this work must only be done by a qualified asbestos removal contractor. Many states now require asbestos contractors to be trained and certified. All repair of asbestos materials must be done with extreme caution.

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Q&A

Q: *What is asbestos?*

A: Asbestos is a mineral fiber found in rocks. There are several kinds of asbestos fibers, all of which are fire resistant and not easily destroyed or degraded by natural processes.

Q: *Is asbestos dangerous?*

A: Asbestos has been shown to cause cancer of the lung and stomach according to studies of workers and others exposed to asbestos. There is no level of exposure to asbestos fibers that experts can assure is completely safe.

Some asbestos materials can break into small fibers which can float in the air, and these fibers can be inhaled. You cannot see these tiny fibers, and they are so small that they pass through the filters of normal vacuum cleaners and get back into the air. Once inhaled, asbestos fibers can become lodged in tissue for a long time. After many years, cancer or mesothelioma can develop.

In order to be a health risk, asbestos fibers must be released from the material and be present in the air for people to breathe.

Q: *Are all products with asbestos a health risk for the consumer?*

A: NO. A health risk exists only when asbestos fibers are released from the material or product. Soft, easily crumbled asbestos-containing material has the greatest potential for asbestos release and therefore has the greatest potential to create health risks.

Q: *Do all people exposed to asbestos develop asbestos-related disease?*

A: NO. Most people exposed to small amounts of asbestos do not develop any related health problems. Health studies of asbestos workers and others in occupational settings, however, show that the chances of developing some serious illnesses, including lung cancer, are greater after exposure to asbestos.

Q: *What hazards do cigarette smokers face when exposed to asbestos? Do they have a greater chance of developing lung cancer than smokers not exposed to asbestos?*

A: YES. Asbestos exposure and cigarette smoking together have been shown to cause a greater risk of lung cancer than either the risk of cancer produced by smoking or working with asbestos alone.

Q: *Where is asbestos used in the home?*

A: Asbestos has been used in a wide variety of products, including household and building materials, such as appliances, ceilings, wall and pipe coverings, floor tiles, and some roofing materials. Basically, asbestos has been used in products for four reasons: (1) to strengthen the product material; (2) for thermal insulation within a product; (3) for thermal or acoustical insulation or decoration on exposed surfaces; and (4) for fire protection.

Q: *How can I tell if I have asbestos in my home?*

A: The manufacturer of a product may be able to tell you, based on the model number and age of the product, whether or not the product contains asbestos. Or you may hire a qualified professional who is trained and experienced in working with asbestos to survey your home. Why hire a professional? Because:

- A professional knows where to look for asbestos.
- A professional can take the sample properly and find out if there is asbestos.
- A professional can offer technical advice about what is the best thing to do.

It is essential to have a survey done **before** you start a renovation project so you will know if any materials in the renovation contain asbestos.

Q: *If my home contains asbestos, what should I do?*

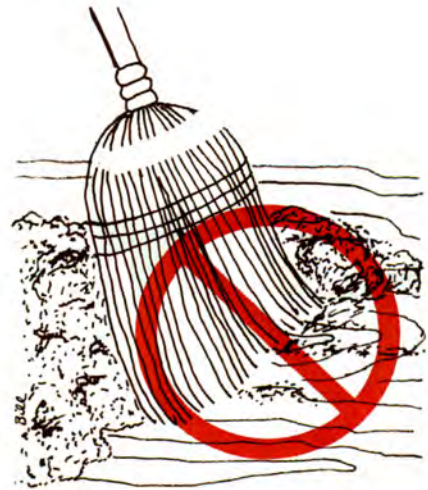
A: If the asbestos-containing material is not likely to be disturbed or is not in an area where major renovations are to occur, **it is best to leave the asbestos-containing material alone.** If the material is likely to be banged, rubbed, or handled—especially during remodeling—you should reduce your exposure as much as possible. This can be best accomplished by a qualified contractor who is trained and experienced in working with asbestos. In general, home repair contractors are not experienced in the proper procedures for handling asbestos. The numbers at the back of this booklet will help you locate a trained contractor to repair or remove asbestos-containing materials.

Vinyl Floor Tiles and Vinyl Sheet Flooring



Asbestos has been added to some vinyl floor tiles to strengthen them. Asbestos is also present in the backing on some vinyl sheet flooring. The asbestos is often bound in the tiles and backing with vinyl or some type of binder. Asbestos fibers can be released if the tiles are sanded or seriously damaged, or if the backing on the sheet flooring is dry-scraped or sanded, or if the tiles are severely worn or cut to fit into place.

When replacement or repair becomes necessary, follow the guidelines given on pages 10-11. The tiles should be handled as little as possible. Avoid sanding or otherwise damaging them. A safe and recommended alternative is to place a new flooring material directly over the old tiles or sheet.



For additional information, you may wish to read: "Recommended Work Procedures for Resilient Floor Covers," available on request from the Resilient Floor Covering Institute, 966 Hungerford Drive, Suite 12-B, Rockville, MD 20850. Enclose a business-size, self-addressed, stamped envelope for that publication.



Patching Compounds and Textured Paints

In 1977, CPSC banned asbestos-containing patching compounds. Some wall and ceiling joints may be patched with asbestos-containing material manufactured before 1977. If the material is in good condition, it is best to leave it alone. Sanding and scraping will release asbestos fibers. If it is in poor condition, or if the wall or ceiling needs to be removed or repaired, follow the guidelines on pages 10-11.

Some textured paint sold before 1978 contained asbestos. It is unlikely that asbestos is being added to textured paint today, based on information obtained from manufacturers by the CPSC. As with patching compounds, textured paint is best left alone if undamaged. Sanding or cutting a surface with textured paint that may contain asbestos should be avoided.



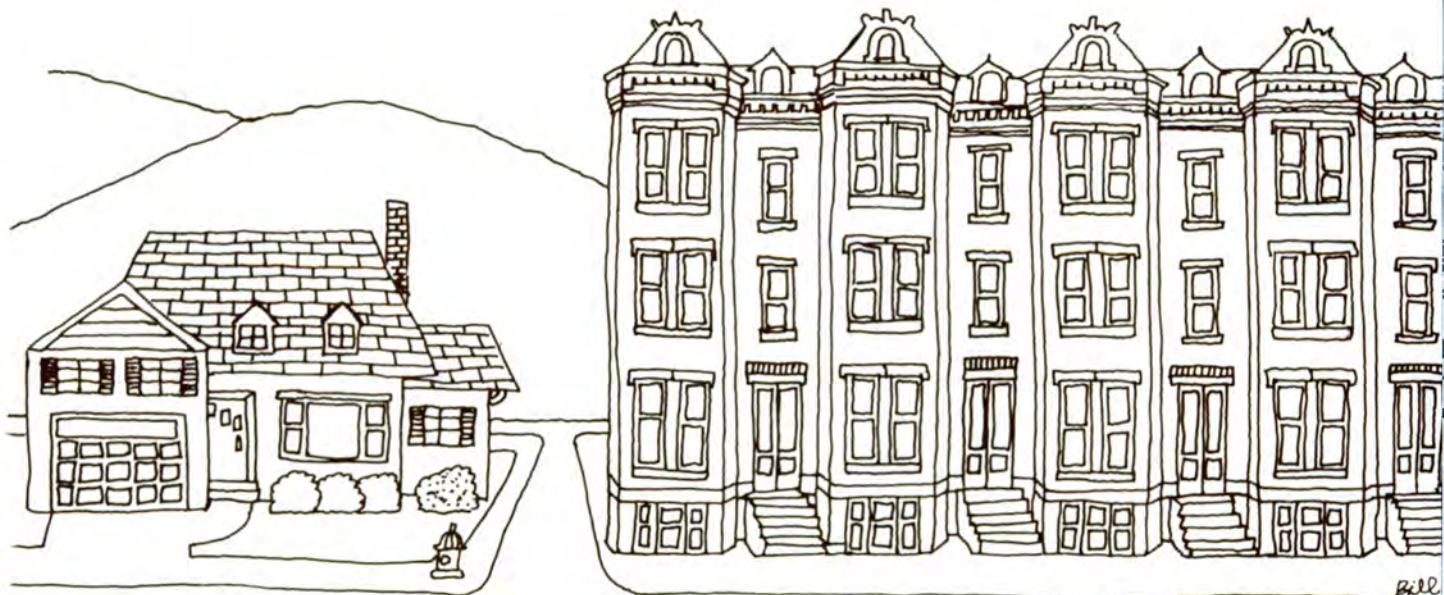
Ceilings

Some large buildings and a few homes built or remodeled between 1945 and 1978 may contain a crumbly, asbestos-containing material which has been either sprayed or troweled onto the ceiling or walls. If the material is in good condition, it is best to leave it alone. If the mate-

rial appears damaged, you may want to consider having it repaired or removed.

If possible, contact the builder or the contractor who applied the ceiling coating to determine whether asbestos-containing material was used. This may be difficult to do in

older homes. If you decide that it is necessary to remove this type of asbestos material, follow the guidelines on pages 10-11. The use of a trained asbestos contractor is highly advised when asbestos-containing material is to be removed.



Stoves and Furnaces

Stove Insulation

Asbestos-containing cement sheets, millboard and paper have been used frequently in homes when wood-burning stoves have been installed. These asbestos-containing materials are used as thermal insulation to protect the floor and walls around the stoves. On cement sheets, the label may tell you if it contains asbestos.

The cement sheet material probably will not release asbestos fibers unless scraped. This sheet material may be coated with a high temperature paint, which will help seal any asbestos into the material.

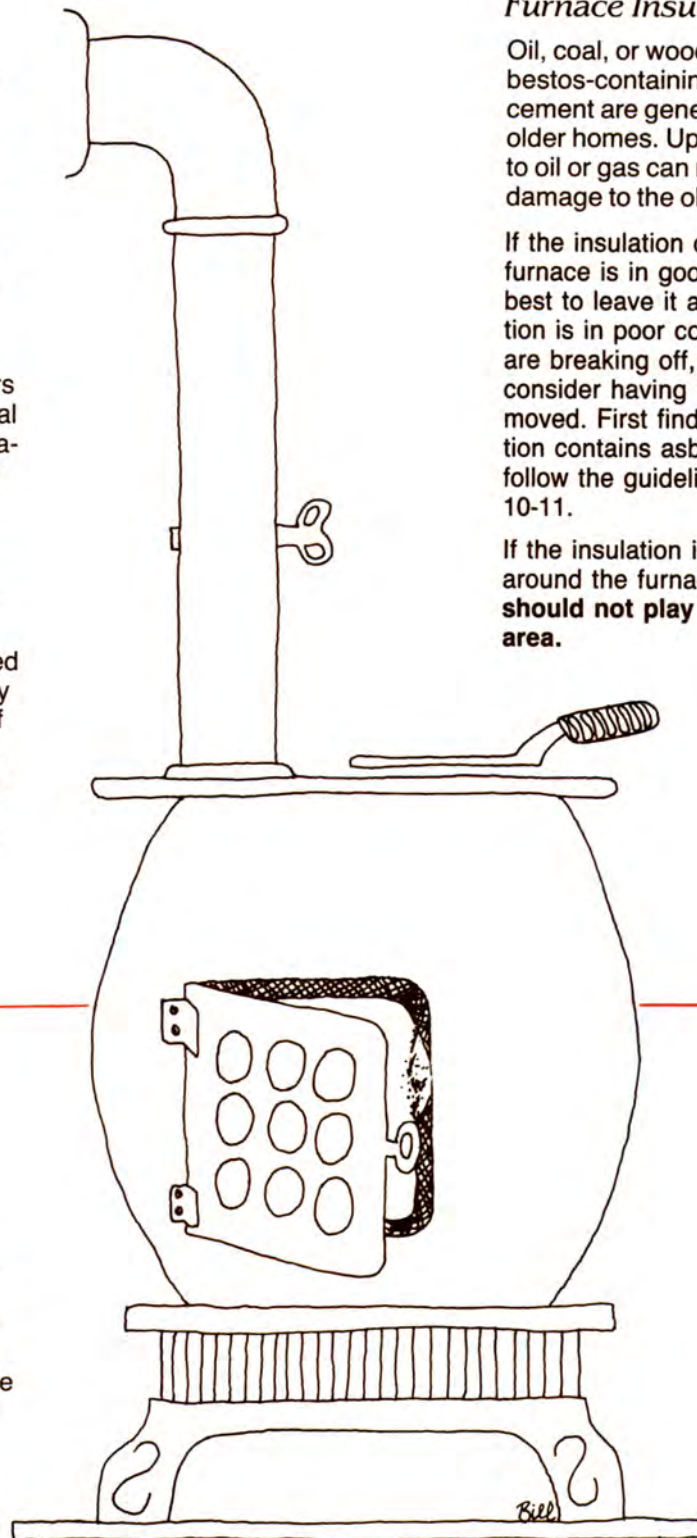
Asbestos paper or millboard are also used for this type of thermal insulation. If these materials have been placed where they are subjected to wear, there is an increased possibility that asbestos fibers may be released. Damage or misuse of the insulating material by sanding, drilling, or sawing will also release asbestos fibers. Suitable precautions should be taken (see guidelines on pages 10-11).

Furnace Insulation

Oil, coal, or wood furnaces with asbestos-containing insulation and cement are generally found in some older homes. Updating the system to oil or gas can result in removal or damage to the old insulation.

If the insulation on or around your furnace is in good condition, it is best to leave it alone. If the insulation is in poor condition, or pieces are breaking off, you may want to consider having it repaired or removed. First find out if the insulation contains asbestos; if it does, follow the guidelines on pages 10-11.

If the insulation is breaking off around the furnace, **children should not play in this dusty area.**



Door Gaskets

Some door gaskets in furnaces, ovens, and wood and coal stoves may contain asbestos. The asbestos-containing door gaskets on wood and coal-burning stoves are subject to wear and can release asbestos fibers under normal use conditions. Handle the asbestos-containing material as little as possible, following the guidelines on pages 10-11.

Walls and Pipes

Pipe Insulation

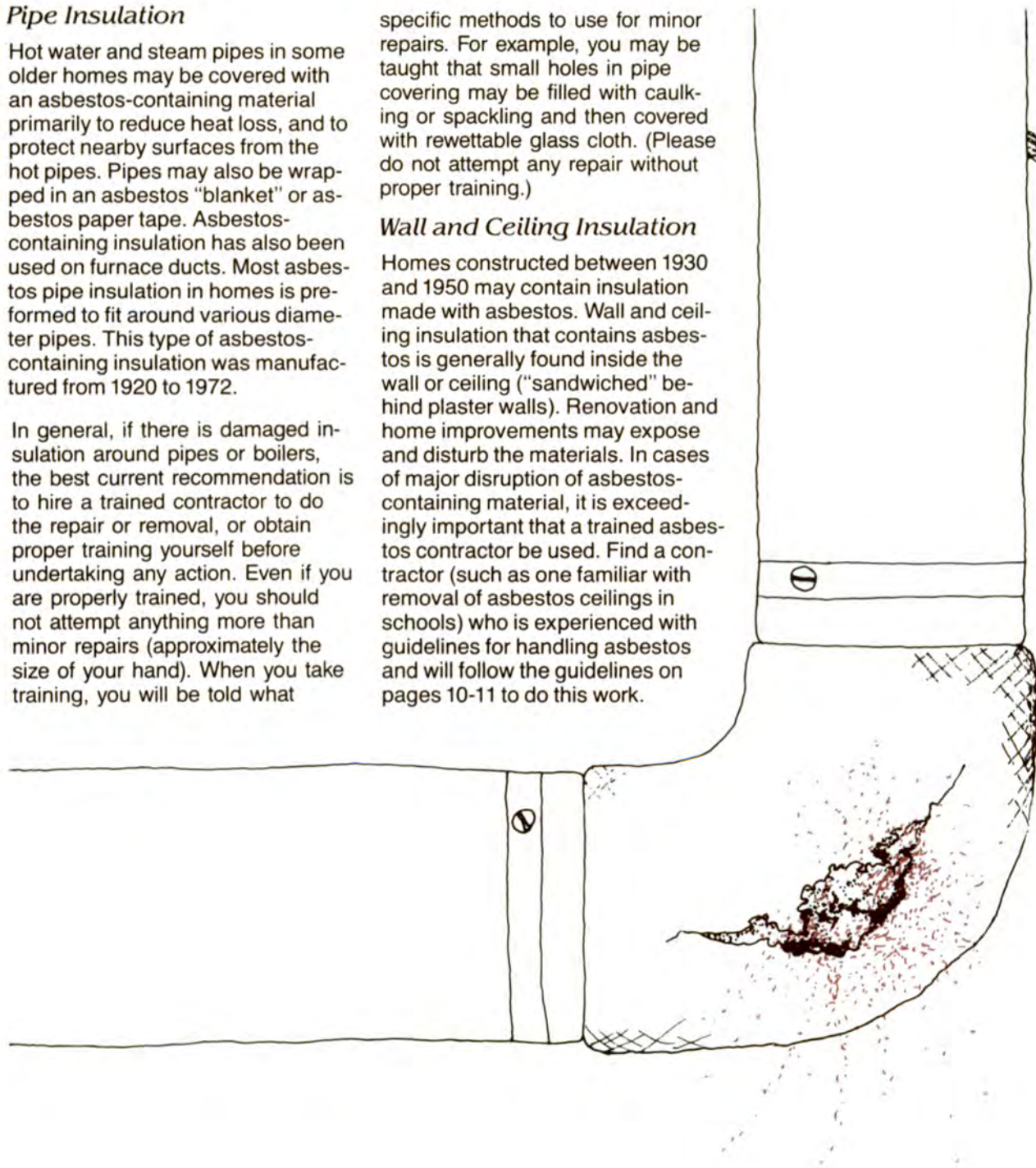
Hot water and steam pipes in some older homes may be covered with an asbestos-containing material primarily to reduce heat loss, and to protect nearby surfaces from the hot pipes. Pipes may also be wrapped in an asbestos "blanket" or asbestos paper tape. Asbestos-containing insulation has also been used on furnace ducts. Most asbestos pipe insulation in homes is performed to fit around various diameter pipes. This type of asbestos-containing insulation was manufactured from 1920 to 1972.

In general, if there is damaged insulation around pipes or boilers, the best current recommendation is to hire a trained contractor to do the repair or removal, or obtain proper training yourself before undertaking any action. Even if you are properly trained, you should not attempt anything more than minor repairs (approximately the size of your hand). When you take training, you will be told what

specific methods to use for minor repairs. For example, you may be taught that small holes in pipe covering may be filled with caulking or spackling and then covered with rewettable glass cloth. (Please do not attempt any repair without proper training.)

Wall and Ceiling Insulation

Homes constructed between 1930 and 1950 may contain insulation made with asbestos. Wall and ceiling insulation that contains asbestos is generally found inside the wall or ceiling ("sandwiched" behind plaster walls). Renovation and home improvements may expose and disturb the materials. In cases of major disruption of asbestos-containing material, it is exceedingly important that a trained asbestos contractor be used. Find a contractor (such as one familiar with removal of asbestos ceilings in schools) who is experienced with guidelines for handling asbestos and will follow the guidelines on pages 10-11 to do this work.



Appliances

Some appliances are, or have been, manufactured with asbestos-containing parts or components. The CPSC is making an effort to identify household appliances which could release asbestos fibers during use. The CPSC has reviewed information on the use of asbestos-containing parts in toasters, popcorn poppers, broilers, slow cookers, dishwashers, refrigerators, ovens, ranges, clothes dryers and electric blankets. There has been a general decline in the use of asbestos in these appliances during recent years.

When asbestos is used, it is in parts which will probably not result in the release of asbestos fibers during use. It is unlikely that asbestos components in these appliances present a significant health risk from release of asbestos fibers.

An exception was hair dryers with asbestos-containing heat shields. Manufacturers voluntarily recalled such hair dryers in 1979. Laboratory tests of most hair dryers showed that asbestos fibers were released during use. Current pro-

duction hair dryer models do not contain asbestos heat shields.

If you are concerned about asbestos in an appliance, do not repair it yourself. Instead, have a qualified repair technician repair it.

In 1986, CPSC required labeling of all consumer products containing asbestos.

In 1989, EPA announced a phased-in ban of most asbestos products, culminating in 1996.

Roofing, Shingles, and Siding

Some roofing shingles, siding shingles and sheets have been manufactured with asbestos-using portland cement as a binding agent. Since these products are already in place and outdoors, there is likely to be little risk to human health. However, if the siding is worn or dam-

aged, you may spray paint it to help seal in the fibers.

You should avoid disturbing these products if they are already part of your home. Unless the roofing must be replaced as a result of normal wear, it is wiser to simply leave it in

place. If repair or replacement is necessary, follow the guidelines on pages 10-11.

How to Identify Asbestos

You should first try to determine whether the material does in fact contain asbestos. Avoid disturbing the material if at all possible. If you cannot determine from the label, installer, or manufacturer whether the material contains asbestos, it is best to contact a qualified, trained professional to make sure that the product does not contain asbestos.

People who have frequently worked with asbestos material (such as plumbers, building contractors or heating contractors) often are able to make a reasonable judgment about whether or not a product con-

tains asbestos, based on a visual inspection.

In some cases, you may want to have the material analyzed. Such analysis may be desirable if you have a large area of damaged material or if you are preparing a major renovation which will expose material contained behind a wall or other barrier.

A list of 221 laboratories receiving initial accreditation to perform bulk asbestos analysis during the second quarter of 1989 has been released by the National Institute of Standards and Technology. The laboratories are recognized by the

National Voluntary Laboratory Accreditation Program to perform such tests. Additional information is available by contacting Laboratory Accreditation, ADMIN A527, National Institute of Standards and Technology, Gaithersburg, MD 20899 (telephone: 301-975-4016; NVLAP computer electronic bulletin board 301-948-2058).

Laboratory analysis can be expensive, ranging from about \$20 to more than \$40 per sample, and several samples may be required to have a more accurate determination of asbestos content.

General Guidelines

for Handling Products Containing Asbestos

If you think that a material contains asbestos, and the material must be banged, rubbed, handled, or taken apart, you should hire a trained asbestos contractor, or obtain proper training yourself, before taking any action. Even if you are properly trained, you should not attempt anything more than minor repairs (approximately the size of your hand).

Special precautions should be taken during removal of exposed or damaged asbestos-containing material. Removal of the material is usually the last alternative.

In order to determine the experience and skill of a prospective asbestos-removal contractor, ask the contractor these questions:

- Are you certified? (Ask to see the certificate.)
- Have you and your workers been trained?
- Do you have experience removing asbestos from homes?

- Will you provide a list of references of people for whom you have worked with asbestos?
- Will you provide a list of places where you have worked with asbestos?
- Will you use the "wet method" (water and detergent)?
- Will you use polyethylene plastic barriers to contain dust?
- Will you use a HEPA (high efficiency particulate air) filter vacuum cleaner?
- Will your workers wear approved respirators?
- Will you properly dispose of the asbestos and leave the site free of asbestos dust and debris?
- Will the contractor provide a written contract specifying these procedures?

Caution:

Do not dust, sweep, or vacuum particles suspected of containing asbestos. This will disturb tiny asbestos fibers and may make them airborne. The fibers are so small that they cannot be seen and can pass through normal vacuum cleaner filters and get back into the air. The dust should be removed by a wet-mopping procedure or by specially-designed "HEPA" vacuum cleaners used by trained asbestos contractors.



Make sure the trained asbestos contractor follows these procedures:

1. The contractor should seal off the work area from the rest of the residence and close off the heating/air conditioning system. Plastic sheeting and duct tape may be used. For some repairs (such as pipe insulation removal) plastic glove bags may be used which can be carefully sealed with tape when work is complete. The contractor should take great care not to track asbestos dust into other areas of the residence.
2. The work site should be clearly marked as a hazard area. Only workers wearing disposable protective clothing should have access. Household members and their pets should not enter the area until work is completed and inspected.
3. During the removal of asbestos-containing material, workers should wear approved respirators appropriate for the specific asbestos activity. Workers should also wear gloves, hats, and other protective clothing. The contractor should properly dispose of all of this equipment (along with the asbestos material) immediately after using it.
4. The contractor should wet the asbestos-containing material with a hand sprayer. The sprayer should provide a fine mist, and the material should be thoroughly dampened, but not dripping wet. Wet fibers do not float in the air as readily as dry fibers and will be easier to clean up. The contractor should add a small amount of a low-sudsing dish or laundry detergent to improve the penetration of the water into the material and reduce the amount of water needed.
5. The contractor should assure that if asbestos-containing material must be drilled or cut, the drilling or cutting is done outside or in a special containment room, with the material wetted first.
6. The contractor should assure that, if the material must be removed, it is not broken into small pieces. While it is easier to remove and handle small pieces, asbestos fibers are more likely to be released if the contractor breaks the material into small pieces. Pipe insulation is usually installed in preformed blocks and should be removed in complete pieces.
7. The contractor should place any material that is removed and any debris from the work in sealed, leak-proof, properly-labeled, plastic bags (6 mil thick) and should dispose of them in a proper land-fill. The contractor should comply with health department instructions about how to dispose of asbestos-containing material.
8. The contractor should assure that after removal of the asbestos-containing material, the area is thoroughly cleaned with wet mops, wet rags, or sponges. The cleaning procedure should be repeated a second time. Wetting will help reduce the chance that the fibers get spread around. No asbestos material should be tracked into other areas. The contractor should dispose of the mop heads, rags, and sponges in the sealed plastic bags with the removed materials.



More Information

For more information on asbestos in appliances and other consumer products, call the CPSC Hotline (numbers below) or write to the U.S. Consumer Product Safety Commission, Washington, DC 20207. The CPSC Hotline has information on certain appliances and products (such as the brands and models of hairdryers that contained asbestos).

Call CPSC at 800-638-CPSC

A teletypewriter (TTY) for the deaf is available on the following numbers:
National TTY (including Alaska and Hawaii)—800-638-8270.
Maryland TTY only—800-492-8104.

The U.S. Consumer Product Safety Commission (CPSC) is an independent regulatory agency charged with reducing unreasonable risks of injury associated with consumer products. CPSC is headed by five Commissioners appointed by the President with the advice and consent of the Senate.

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For more information on asbestos analysis and removal activities, contact the "asbestos coordinator" in the EPA Regional Offices at the following addresses:

Call the EPA TSCA assistance line (202-554-1404) to find out whether your state has a training and certification program for asbestos removal contractors and for information on EPA's asbestos programs.

EPA, Region I, (APT-2311) Asbestos Coordinator JFK Federal Bldg. Boston, MA 02203 (617) 565-3835	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
EPA, Region II, (MS-500) Asbestos Coordinator Woodbridge Ave. Raritan Depot, Bldg. 5 Edison, NJ 08837 (201) 321-6671	New Jersey, New York Puerto Rico, Virgin Islands
EPA, Region III, (3HW-42) Asbestos Coordinator 841 Chestnut Bldg. Philadelphia, PA 19107 (215) 597-3160	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia
EPA, Region IV Asbestos Coordinator 345 Courtland St., N.E. Atlanta, GA 30365 (404) 347-5014	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
EPA, Region V (5-SPT-7) Asbestos Coordinator 230 S. Dearborn Street Chicago, IL 60604 (312) 886-6003	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
EPA, Region VI (6T-PT) Asbestos Coordinator 1445 Ross Avenue Dallas, TX 75202-2733 (214) 655-7244	Arkansas, Louisiana, Oklahoma, New Mexico, Texas
EPA, Region VII (ARTX) Asbestos Coordinator 726 Minnesota Ave. Kansas City, KS 66101 (913) 236-2835	Iowa, Kansas, Missouri, Nebraska
EPA, Region VIII (8AT-TS) Asbestos Coordinator 1 Denver Place 999 - 18th Street Suite 500 Denver, CO 80202-2413 (303) 293-1442	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
EPA, Region IX, (T-5-2) Asbestos Coordinator 215 Fremont Street San Francisco, CA 94105 (415) 974-7290	Arizona, California, Hawaii, Nevada, American Samoa, Guam, Trust Territories of the Pacific
EPA, Region X, (8T-083) Asbestos Coordinator 1200 Sixth Avenue Seattle, WA 98101 (206) 442-4762	Alaska, Idaho, Oregon, Washington



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