How to Properly Remove Sheet Vinyl Flooring with Asbestos Backing
From Owner-Occupied, Single-Family Residences Only

This publication details the steps necessary for the safe removal of sheet vinyl flooring with asbestos backing from an owner-occupied, single-family home. The term *single-family home* includes houses, mobile homes, trailers, detached garages, houseboats, and houses with a “mother-in-law apartment” or “guest room.” This term does not include rental property or multiple-family units, nor does it include any mixed-use building that contains a residential unit. Be aware that no set of instructions can anticipate all possible situations and variables that a homeowner may encounter in an asbestos removal project.

It is essential that you read these instructions from start to finish, making sure you thoroughly understand them before disturbing your vinyl flooring in any way. **Failure to do so poses a severe health risk to you and your family.**

Puget Sound Clean Air Agency strongly recommends that you hire a state-certified asbestos abatement contractor. However, if after reading this instruction manual you still choose to do the work yourself, it is critical that you follow each step completely and carefully — from site preparation to disposal — so that your removal project is effective, safe, and legal.

**Exposure to airborne asbestos may cause cancer or other lung diseases.**

*Puget Sound Clean Air Agency assumes no liability or responsibility for house damage, injuries, illnesses, or related health problems arising from you performing an asbestos removal project. You assume all risks involved.*

This publication is limited to the removal of sheet vinyl flooring, one of the three most common asbestos abatement projects attempted by homeowners. Puget Sound Clean Air Agency also provides free information about removing “popcorn” ceilings and cement asbestos-board siding. This publication can be downloaded from our web site at [www.pscleanair.org](http://www.pscleanair.org).
ARE YOU PREPARED TO TAKE ON THIS PROJECT?

It is essential that you are aware of all the challenges and risks of tackling an asbestos removal project yourself. It can be time consuming, messy, expensive, and dangerous to your health if not performed correctly.

Before you begin any asbestos removal project, you must be able to answer “yes” to all the following questions:

Are you sure there is asbestos in your flooring?

Not all sheet vinyl flooring has asbestos backing. To know for sure, submit a flooring sample for laboratory analysis. Cost for such testing is minimal, typically $25 per sample. Laboratories are listed in the yellow pages of your phone book under “Asbestos — Consulting and Testing.”

If you decide not to check for asbestos, assume the flooring contains asbestos and answer “Yes.”

To take a sheet vinyl flooring sample for analysis you will need:
a spray bottle, liquid detergent, resealable plastic bags, utility knife, and rubber gloves.

Take at least one sample (three are recommended) of each type, pattern, or color of sheet vinyl flooring.

1. Fill a spray bottle with water mixed with a few drops of liquid detergent.
2. Remove a piece of floor molding or a floor heat register to access an edge of the sheet vinyl flooring.
3. With a utility knife and while wearing rubber gloves, cut a one-inch long, 1/8th-inch wide sliver of sheet vinyl flooring. Make sure to cut all the way down to the floor so your sample includes flooring, backing, and adhesive. While you're cutting the sample, a second person should assist you by misting the cutting area with water from the spray bottle to ensure no fibers are released into the air. Place the sample into a bag and seal it. Take the samples in random areas throughout the sheet vinyl floor.
4. Take the samples to an asbestos testing lab.

In order to reduce the analysis cost, you may instruct the lab to test the samples only until they find the first positive sample for asbestos. Since any one positive sample of flooring, backing, or adhesive indicates that the entire type of sheet vinyl flooring is asbestos, it may not be necessary to test all the samples. If a sample contains more than 1% asbestos, the asbestos regulations apply.
CLEANING UP (CONT.)

Wet and remove debris from heat ducts.

Wet any debris collected on plastic taped inside the open floor heat ducts. Remove the plastic, being careful not to drop debris into the furnace ducts, and deposit it in an asbestos waste disposal bag.

Wet and remove plastic sheets.

Mist with water, then take down and bag plastic sheets hung to separate the work area from the rest of the house. Deposit all plastic in asbestos waste disposal bags. DO NOT YET REMOVE THE PLASTIC OUTSIDE THE EXIT DOOR.

Check that you have collected all debris and securely sealed all waste disposal bags.

Make sure all loose debris is double bagged in asbestos waste disposal bags, properly labeled and sealed with duct tape. These bags must also specify the asbestos warning sign required by Labor and Industries or OSHA.

Wipe surfaces, floors, and tools.

Using clean rags wet wipe all horizontal surfaces and floors.

Wipe off scraping tools.

Place tools in a bucket or plastic bag for more thorough cleaning later.

Dispose of all contaminated wipe rags as asbestos debris in a sealed asbestos waste disposal bag.


Never attempt to vacuum or sweep up asbestos debris. This will cause any fibers present to become airborne in your house.

Stand on the last piece of plastic sheeting outside the designated exit door.

Spray yourself (or each other) with water to wet down any asbestos debris/fibers on the outside of your respirator and disposable coveralls.

Remove boots, gloves and coveralls.

Remove your disposable gloves and coveralls by peeling them off and turning them inside out as you remove them. Double bag them in asbestos waste disposal bags.

Dispose of boots as contaminated waste or put them in a plastic bag for cleaning later. Step off the last plastic sheet.

If your flooring contains asbestos, is removal the best option?

Asbestos is a problem only if fibers are released to the air. There are safer, easier, and less-expensive alternatives to removing your asbestos-backed sheet vinyl flooring. Rather than removing it, consider installing a new floor directly on top of it. Another possibility is to lay 1/4-inch underlayment on top of your existing floor and then lay new flooring on top of that. Or, if your existing flooring is in good condition, your best option may be to simply leave it alone.

Are you prepared to accept the serious health risks associated with doing the asbestos removal yourself?

Airborne asbestos is a serious health hazard.

Breathing asbestos fibers can cause lung cancer and other diseases.

When disturbed, asbestos breaks down into fibers up to 1,200 times thinner than a human hair. If released into the air, asbestos cannot be seen and quickly circulates through your home. When inhaled, these fibers become trapped in lung tissues. Medical research tells us that up to 30 years after inhalation, asbestos fibers can cause lung cancer, mesothelioma, a related terminal cancer of the tissue that lines the chest cavity, and asbestosis, a condition that can lead to breathing problems and heart failure.

There is no known safe level of asbestos exposure. That's why medical, environmental health, and regulatory organizations stress the need to protect health by minimizing exposure to airborne asbestos fibers, particularly at elevated levels, such as can occur during a remodeling project.
Without proper breathing equipment and body coverage at all times when working with asbestos, you or anyone in the vicinity of the removal area may be at serious risk.

The removal procedures described in this publication are intended to help homeowners minimize health risks associated with do-it-yourself asbestos removals. However, it should be understood that with any removal project some release of asbestos fibers into the air is unavoidable and there are no known safe levels of asbestos exposure.

Are you prepared to assume the challenge of do-it-yourself asbestos removal and disposal?

The work will be difficult, requiring the purchase of safety equipment.

Even under the best of circumstances, do-it-yourself asbestos projects can be physically demanding and potentially dangerous.

• Breathing through a respirator is more difficult than normal breathing and places additional stress on heart and lungs.
• Protective clothing can be hot and uncomfortable.
• Work spaces become very humid due to the water used in wetting the asbestos.
• Eye protection often results in reduced visibility.
• Caution must be taken with wiring and electrical power because of all the water being used to wet the asbestos.

As a homeowner, you do not have the specialized equipment, materials, and experience of an asbestos abatement contractor to perform this work. Unlike contractors, who have special machines with high-efficiency filters to remove fibers from the workplace air, you have few, if any, safety “back-ups” if something goes wrong.

The work will be time consuming.

The total time it takes to remove vinyl flooring can be substantial. Time estimates for removing the floor from an average size bathroom or kitchen are:

• Collect supplies – ½ day
• Set up containment area; removal and clean up – ½ to 1 day
• Disposal – ½ day
Cutting the Floor

BE SMART

ASBESTOS REMOVAL (CONT.)

7B. "In Sections" Method
Use the "in sections" method if the test performed in Step 2 revealed the vinyl flooring would tear – rather than peel – if lifted from the underlayment.

Outline a section of flooring for removal, using a marking pen. If your floor was laid on plywood, draw removal sections about 1- by 3-feet in size.

Using a hammer and chisel, make consecutive vertical cuts along the section you've marked for removal. Each vertical cut should go through all layers of vinyl. It may go into, but not necessarily through, the plywood underlayment. As one person chisels, a second worker should follow, spraying each cut with the water and detergent mixture to wet exposed asbestos edges. Do not use power cutting tools.

Removal Tips and Troubleshooting
Whenever possible, cut down on the amount of chiseling you have to do by using seams in the plywood underlayment as edges to sections you're removing. Whenever an underlayment seam is being followed, use a utility knife, instead of a hammer and chisel, to cut the vinyl flooring.

As you proceed, experiment to determine what size of section can most effectively be removed. Try to remove large, yet convenient-to-handle pieces.

Using wrecking bars, pry up each cut section of plywood underlayment (with flooring attached and intact) from the sub-floor. As each piece is removed, re-wet section edges.

Double wrap sections of flooring in 6-mil polyethylene or insert them into asbestos waste disposal bags.

The work may cause damage to your home. These procedures may result in damage. Duct tape can discolor wood paneling, tear wallpaper and remove paint and texture. Water may stain walls or seep through to a ceiling below the work area.

Are you aware of the legal issues involved?

During removal
The law prohibits you from hiring anyone other than a certified asbestos abatement contractor to perform — or assist with — asbestos removal work in your single-family residence. Homeowners may remove asbestos themselves. But as stated above, this option is difficult, time-consuming, and dangerous to your health if prescribed work procedures are not strictly followed.

During disposal
If you choose to remove asbestos yourself, you take on the legal liability of ensuring proper bagging and identification of asbestos debris, correct transport (in a covered vehicle), and disposal ONLY at disposal sites or transfer stations licensed to receive such waste. These regulations protect your community from the harmful effects of asbestos.

The Washington State Department of Labor and Industries has regulations that may also apply. Call 800-4-BE-SAFE or visit www.lni.wa.gov/wisha for more information.

If you answered “No” to any of the above questions, and if you still wish to have asbestos removed from your home, YOU MUST CONTACT A STATE-CERTIFIED ASBESTOS REMOVAL CONTRACTOR. This is the quickest, safest, and most-reliable way to remove asbestos from your home.
BEFORE YOU BEGIN ASBESTOS REMOVAL

No set of instructions can address all possible situations and variables that a homeowner may encounter in an asbestos removal project. This publication is intended to address the common steps and most important issues involved in removing sheet vinyl flooring.

Common sense dictates that unique and particularly challenging projects should not be undertaken by the homeowner. In such cases, avoid the possibility of asbestos contamination by abandoning the “do-it-yourself” approach and hiring a state-certified asbestos abatement contractor.

The following three steps should be taken care of before you start your removal project.

1. **Complete a notification.**

   Prior to removing friable asbestos, you are required to mail a Notice of Single-Family Residence Asbestos Removal notification to the Agency with the $25 processing fee. Be sure to keep a copy of the notice and post it on site during the project as no copy will be provided back to you. This form can be downloaded from our web site at www.pscleanair.org.

   We anticipate after May 1, 2007, all asbestos project notifications, including single family residence, will only be accepted by submitting online on our web site www.pscleanair.org.

2. **Determine the appropriate method for safely removing the floor.**

   Asbestos-backed sheet vinyl flooring was commonly installed over a variety of surfaces: hardwood, softwood, concrete, tongue-and-groove wood, particle board, and plywood. The removal procedures described in this publication address the removal of asbestos-backed sheet vinyl only if:

   • It can be peeled off without disturbing the asbestos-containing backing, or
   • The sheet vinyl flooring was laid over plywood and can be removed in sections with the underlayment attached.

   Before you proceed, you must determine whether it’s possible to remove your floor safely, and if so, which of the two removal methods – “peeling method” or “in sections method” should be employed.
Instructions for determining the appropriate method for safe removal of your floor.

You will need a spray bottle, liquid detergent, a razor blade utility knife, resealable plastic bag, rubber gloves, and one person to assist you.

1. Fill a spray bottle with water mixed with a few drops of liquid detergent.
2. Using a utility knife, cut a test strip of the vinyl flooring approximately 2 inches wide by 6 inches long. It’s best to do this at a floor heat duct opening or next to the wall in an inconspicuous corner of the room. Press hard to cut through all layers to the hard sub-flooring.
3. Using a putty knife, lift up the edge of the asbestos-backed flooring strip and slowly peel it back while another person sprays the backing with water as it is exposed. Attempt to peel no more than 1 or 2 inches. What happens?

   a. **If the test strip comes up without tearing the backing,** it means little or no adhesive has been used to hold the sheet vinyl in place. If this is the case with the rest of your vinyl, you will be able to use the “peeling” method to remove the remainder of the floor, as described later in Step 7A.

   or

   b. **If the asbestos backing tears away as you peel,** it means your asbestos-backed sheet vinyl flooring is tightly attached with adhesives. It must be removed using the “in sections” method with the underlayment attached. This method is difficult and involves removing sections of plywood (with the vinyl flooring attached) and disposing of the removed sections, as described later in Step 7B.

4. Cut off the short peeled piece, wet and scrape any torn asbestos backing off the floor, and dispose of the removed test materials by sealing them in a plastic bag.

**If, in performing the above test, you discover your asbestos-backed sheet vinyl flooring is tightly glued to anything other than particle board or plywood, there may be no safe way for you to remove it. Puget Sound Clean Air Agency recommends you use a state-certified asbestos abatement contractor for such removals.**
3. Gather essential personnel and supplies.

Workers

It is illegal to hire anyone other than a state-certified asbestos abatement contractor to perform, or assist in, this removal process.

Three people are recommended to remove a vinyl floor: two homeowners should perform the removal work and a third person should be “standing by” outside the work area to provide water, tools, and other supplies as needed while work is in progress. This will minimize the need for people inside the containment area to remove their disposable clothing and put on new clothing for each exit and entrance to the work area.

Protective equipment and clothing

During removal, all workers must be protected from breathing or spreading asbestos fibers by wearing an appropriate respirator, disposable coveralls, goggles, disposable gloves, and rubber boots.

Before beginning your project, you’ll need to obtain the following items. All items marked with a triangle (▲) must be purchased at special stores that carry approved health and safety equipment used for asbestos removal.

Check the yellow pages of your phone book under “Safety Equipment and Clothing” for a list of safety equipment vendors.

▲ Respirators — Half-face, dual-cartridge respirators, each equipped with a pair of HEPA filters are required. One respirator is required for each person working within the containment area. Respirators provide little protection if they do not fit properly, so request a fit test from the vendor.
SITE PREPARATION (CONT.)

Designate a spot for entering and exiting the work area, preferably an outside exit. Immediately outside this entry/exit, lay a sheet of plastic approximately 6-feet square. This is your designated decontamination point.

Identify water source. If there is no water supply located within or just outside the work area, you may need to run a hose to the decontamination point for refilling spray bottles or the tank sprayer.

Tape plastic inside open floor-mounted heat ducts to prevent debris from falling into the duct work.

Fill the tank sprayer or spray bottles with water and detergent, using one teaspoon of detergent per spray bottle or \(\frac{1}{4}\) to \(\frac{1}{2}\) cup per tank sprayer.

Label asbestos waste disposal bags, or stickers using a permanent marker pen. Write your last name, address, and date of removal on each. It is easier to label bags prior to filling them. These bags must also specify the asbestos warning sign required by Labor and Industries or OSHA.

Place supplies at the entry/exit point. Have a water sprayer bottle, clean wet rags, a bucket, and asbestos waste disposal bags at any entry/exit location.

**Persons with beards often cannot be adequately fitted with this type of respirator and should not work within contaminant areas.**

**Coveralls** — Several pairs of disposable coveralls with built-in booties should be purchased for each person who will be in the work area. Oversized coveralls make it easier for workers to move around. NEW COVERALLS WILL BE NEEDED FOR EACH ENTRY INTO THE CONTAINMENT AREA. Every time a worker leaves a containment area, coveralls should be wetted and disposed of in a properly sealed asbestos waste disposal bag.

**Rubber boots** — Laceless, pull-on rubber boots without fasteners will protect coverall booties so they do not wear through. Rubber boots can be washed off later or disposed of as contaminated debris.

**Eye protection** — Each worker performing flooring removal work should be equipped with non-fogging goggles or other safety-approved eyewear protection.

**Rubber gloves** — Several pairs of durable, disposable rubber gloves should be purchased for each worker. Rubber gloves must be worn by each person working within the containment area. NEW GLOVES ARE REQUIRED WITH EACH RE-ENTRY INTO THE CONTAINMENT AREA. Every time a worker leaves a containment area during a removal project, these gloves should be wetted and disposed of in an asbestos waste disposal bag.

**Asbestos waste disposal bags** — These special bags will be used to contain asbestos contaminated debris and materials. The bags should be sized 33 inches by 50 inches and be made of 6-mil polyethylene. Each should be pre-printed with required asbestos warnings. Assume you’ll need a dozen bags for each 100 square feet of flooring to be removed.

**Asbestos waste disposal stickers** — These special stickers can be used to tag larger items of debris that do not fit in the bags, but are double wrapped and sealed in 6-mil plastic. You may need to special-order these from a safety supply store because few carry them in stock. Plan accordingly.
Tools and Supplies

- **Tank sprayer (2-3 gallons)** — This will be your means of wetting exposed asbestos-containing materials.

- **Garden hose with automatic shut-off spray nozzle (optional).** If there is no water supply located within the work area, or if you don’t have a worker outside the containment area available to refill your tank sprayer or spray bottles, you may need to run a hose to the containment area. Leave the hose just outside a window or door in the room you are working on. You want it within reach, but not inside the house where it may leak.

- **Liquid dishwashing detergent** — Mixed at 1 cup per 5 gallons of water for best results in wetting.

- **Removal tools:**
  - Two sharp chisels with one-inch blades
  - Two heavy (16- to 20-ounce) claw hammers
  - Two putty knives with 4- to 6-inch blades
  - One razor blade utility knife with extra blades
  - One paint scraper or stiff-bladed wall or floor scraper
  - Two wrecking bars for prying up flooring materials

- **6-mil polyethylene plastic sheeting** — This will be used to cover countertops, open doorways, and an approximately 6-foot square area of floor outside your designated exit. It will also be used to double wrap large pieces of removed flooring.

- **Permanent marker pen** — You must write your last name, address, and removal date on each waste disposal bag or sticker. If using the “in sections” method of removal you will also need the marking pen to outline sections prior to cutting.

- **Duct tape** — Numerous rolls will be needed for sealing waste disposal bags and holding some of the containment area plastic in place.

- **Clean, disposable rags** — A large supply should be on hand for assorted removal and clean-up purposes.
SITE PREPARATION

4. Prepare the house.

- **Post signs** warning friends, family, and others who might visit to stay well away from the work area. Make sure pets cannot come near the work site.
- **Turn off heating and air conditioning systems.**
- **Remove all furniture, floor moldings, metal-edge trim pieces, heat vents/grates, appliances, and other items that are on the floor.** In bathrooms, this includes toilets and old-fashioned, claw-foot bathtubs. Modern bathtubs, which are flush to the floor and against which flooring is laid, need not be removed.
- **Remove all loose items and small appliances** from counters, shelves, or other horizontal surfaces.
- **Sweep and wash the floor** to provide a clean working surface.

5. Build a containment area.

You need to contain asbestos debris and minimize the release of asbestos fibers by constructing a containment area.

- **Hang these instructions like a calendar.** Select an accessible location within the containment area away from where you’ll be spraying water.
- **Cover counter tops and other horizontal surfaces with sheet plastic.** Secure the plastic with duct tape.
- **Cover doorways and other entryways** to the work area with sheet plastic to isolate the area from the rest of the house. For ventilation, exterior doors and windows may be left open with a loose plastic covering.
SITE PREPARATION (CONT.)

- Designate a spot for entering and exiting the work area, preferably an outside exit. Immediately outside this entry/exit, lay a sheet of plastic approximately 6-feet square. This is your designated decontamination point.

- Identify water source. If there is no water supply located within or just outside the work area, you may need to run a hose to the decontamination point for refilling spray bottles or the tank sprayer.

- Tape plastic inside open floor-mounted heat ducts to prevent debris from falling into the duct work.

- Fill the tank sprayer or spray bottles with water and detergent, using one teaspoon of detergent per spray bottle or ¼ to ½ cup per tank sprayer.

- Label asbestos waste disposal bags, or stickers using a permanent marker pen. Write your last name, address, and date of removal on each. It is easier to label bags prior to filling them. These bags must also specify the asbestos warning sign required by Labor and Industries or OSHA.

- Place supplies at the entry/exit point. Have a water sprayer bottle, clean wet rags, a bucket, and asbestos waste disposal bags at any entry/exit location.

PROTECT YOURSELF

6. Put on protective clothing and equipment.

- Put on coveralls, gloves, goggles, and respirator. Those who will enter the containment area to do the removal must put on disposable coveralls outside the containment area while standing on the entrance/exit plastic. They should then put on gloves, goggles and respirators equipped with HEPA filters.

- Tape your gloves to the sleeves of your disposable coveralls around the wrists to ensure your arms and wrists remain covered.
If you must leave the plastic containment area during the project, use the spray bottle to wet down and remove protective equipment and clothing while standing on the plastic just outside the entrance/exit to the work area. Place coveralls and gloves in an asbestos waste disposal bag. Then step off the plastic. Upon returning, put on new coveralls and gloves.
ASBESTOS REMOVAL

7. Remove the floor using “peeling” method A or “in sections” method B, as determined in Step 2.

As you prepare to remove the floor, your most important objective is to minimize the disturbance of asbestos-containing materials.

Wetting is critical to asbestos fiber control. Before, during, and after removal, asbestos materials should be thoroughly saturated with water in order to keep asbestos fibers out of the air. Once removed, asbestos debris must be kept wet until packaged and sealed for disposal.

Enter the containment area only when fully clothed in protective gear.

7A. Peeling method

Use the peeling method only if the test strip (Step 2) was successfully removed without tearing the asbestos backing.

Cut the first piece of flooring; spray with water. Using the utility knife and sufficient pressure to fully penetrate the thickness of the vinyl, cut a piece of flooring approximately 1 by 2 feet. An assistant should spray the starting edge with water. Lift and peel up the flooring, wetting as the backing is exposed.
BE SMART

Lift and Peel up Flooring

BEFORE YOU BEGIN ASBESTOS REMOVAL

No set of instructions can address all possible situations and variables that a homeowner may encounter in an asbestos removal project. This publication is intended to address the common steps and most important issues involved in removing sheet vinyl flooring.

Common sense dictates that unique and particularly challenging projects should not be undertaken by the homeowner. In such cases, avoid the possibility of asbestos contamination by abandoning the “do-it-yourself” approach and hiring a state-certified asbestos abatement contractor.

The following three steps should be taken care of before you start your removal project.

1. Complete a notification.
   Prior to removing friable asbestos, you are required to mail a Notice of Single-Family Residence Asbestos Removal notification to the Agency with the $25 processing fee. Be sure to keep a copy of the notice and post it on site during the project as no copy will be provided back to you. This form can be downloaded from our web site at www.pscleanair.org.

   We anticipate after May 1, 2007, all asbestos project notifications, including single family residence, will only be accepted by submitting online on our web site www.pscleanair.org.

2. Determine the appropriate method for safely removing the floor.
   Asbestos-backed sheet vinyl flooring was commonly installed over a variety of surfaces: hardwood, softwood, concrete, tongue-and-groove wood, particle board, and plywood. The removal procedures described in this publication address the removal of asbestos-backed sheet vinyl only if:
   • It can be peeled off without disturbing the asbestos-containing backing, or
   • The sheet vinyl flooring was laid over plywood and can be removed in sections with the underlayment attached.

   Before you proceed, you must determine whether it’s possible to remove your floor safely, and if so, which of the two removal methods – “peeling method” or “in sections method” should be employed.

   Removal Tips and Troubleshooting

   If, at any point in the peeling process, you find your sheet vinyl backing is adhering tightly to the underlayment and tearing apart in more than just an occasional square inch or two, abandon this technique and follow the “in sections method” described in the next section, 7B.

   You may discover that there is more than one layer of flooring under the top layer you are attempting to remove. If the top layer is thoroughly glued but a lower layer is secured with little or no adhesive, you may be able to safely peel off sections of flooring at that level.

   If, as you’re peeling, asbestos backing begins to pull apart in a small, isolated area, you may have come across an occasional “glue spot.” Stop and thoroughly wet both the backing and underlayment. Use a chisel or putty knife to dig under the torn area until you’re past it.

   Dispose of each piece of removed flooring (with backing thoroughly wetted) in an asbestos waste disposal bag as you remove it.

   Repeat this process until the entire floor has been removed. You may peel off the floor in larger pieces as long as the backing does not tear and the backing is wetted upon exposure.

   Pieces that are too large to fit in a pre-marked asbestos waste disposal bag can be double wrapped in 6-mil plastic, sealed with duct tape, and tagged with asbestos waste disposal stickers.
7B. “In Sections” Method

Use the “in sections” method if the test performed in Step 2 revealed the vinyl flooring would tear – rather than peel – if lifted from the underlayment.

- **Outline a section of flooring for removal**, using a marking pen. If your floor was laid on plywood, draw removal sections about 1- by 3-feet in size.

- **Using a hammer and chisel, make consecutive vertical cuts along the section you’ve marked for removal.** Each vertical cut should go through all layers of vinyl. It may go into, but not necessarily through, the plywood underlayment. As one person chisels, a second worker should follow, spraying each cut with the water and detergent mixture to wet exposed asbestos edges. Do not use power cutting tools.

**Removal Tips and Troubleshooting**

- Whenever possible, cut down on the amount of chiseling you have to do by using seams in the plywood underlayment as edges to sections you’re removing. Whenever an underlayment seam is being followed, use a utility knife, instead of a hammer and chisel, to cut the vinyl flooring.

- As you proceed, experiment to determine what size of section can most effectively be removed. Try to remove large, yet convenient-to-handle pieces.

- **Using wrecking bars, pry up each cut section of plywood underlayment** (with flooring attached and intact) from the sub-floor. As each piece is removed, **re-wet section edges**.

- **Double wrap sections of flooring in 6-mil polyethylene or insert them into asbestos waste disposal bags.**
DANGER

ARE YOU PREPARED TO TAKE ON THIS PROJECT? (CONT.)

Without proper breathing equipment and body coverage at all times when working with asbestos, you or anyone in the vicinity of the removal area may be at serious risk. The removal procedures described in this publication are intended to help homeowners minimize health risks associated with do-it-yourself asbestos removals. However, it should be understood that with any removal project some release of asbestos fibers into the air is unavoidable and there are no known safe levels of asbestos exposure. Are you prepared to assume the challenge of do-it-yourself asbestos removal and disposal?

The work will be difficult, requiring the purchase of safety equipment. Even under the best of circumstances, do-it-yourself asbestos projects can be physically demanding and potentially dangerous.

• Breathing through a respirator is more difficult than normal breathing and places additional stress on heart and lungs.
• Protective clothing can be hot and uncomfortable.
• Work spaces become very humid due to the water used in wetting the asbestos.
• Eye protection often results in reduced visibility.
• Caution must be taken with wiring and electrical power because of all the water being used to wet the asbestos.

As a homeowner, you do not have the specialized equipment, materials, and experience of an asbestos abatement contractor to perform this work. Unlike contractors, who have special machines with high-efficiency filters to remove fibers from the workplace air, you have few, if any, safety “back-ups” if something goes wrong.

The work will be time consuming.

The total time it takes to remove vinyl flooring can be substantial. Time estimates for removing the floor from an average size bathroom or kitchen are:

- Collect supplies – 1/2 day
- Set up containment area; removal and clean up – 1/2 to 1 day
- Disposal – 1/2 day

Tips and Troubleshooting: Do you have floor-mounted cabinets?

If the room has floor-mounted cabinets with recessed toe plates and the underlayment for your sheet vinyl floor extends under them, you may not be able to remove the underlayment flush to the cabinet recessed toe plate. In this situation, follow these steps:

1. Remove the underlayment to a point following a line 3 or 4 inches away from the recessed toe plate. Once flooring has been removed up to this point, you’ll be left with a narrow strip of sheet vinyl glued to the inaccessible underlayment underneath the recessed toe plate.

2. To remove the strip of sheet vinyl flooring from the remaining underlayment under the recessed toe plate, take hold of an exposed edge and slowly lift the vinyl flooring, wetting the asbestos backing as it is exposed. Slowly peel this strip of flooring by rolling the removed strip and continually wetting the backing as it is exposed. Deposit the peeled-off flooring into asbestos waste disposal bags.

3. Before removing any asbestos backing left adhering to the underlayment under the recessed toe plate, thoroughly re-wet the material, allowing 20-30 minutes for the water/detergent solution to soak in. Then scrape the material off with a paint scraper or stiff-bladed wall/floor scraper. Continue to re-wet the leftover asbestos backing material as necessary.

Later, before laying a new floor, underlayment of the same thickness as the old, removed underlayment can be laid flush with the underlayment left under the recessed toe plate to create a smooth, even surface.

CLEANING UP

8. Wet and remove all debris.

☐ Wet and remove loose debris. Spray water and detergent mixture on any debris on the plastic sheets laid on counters, floors and other horizontal surfaces. Carefully roll or fold the debris up in these plastic sheets and deposit them in asbestos waste disposal bags. Twist tops of the bags and seal with duct tape.
CLEANING UP (CONT.)

☐ Wet and remove debris from heat ducts. Wet any debris collected on plastic taped inside the open floor heat ducts. Remove the plastic, being careful not to drop debris into the furnace ducts, and deposit it in an asbestos waste disposal bag.

☐ Wet and remove plastic sheets. Mist with water, then take down and bag plastic sheets hung to separate the work area from the rest of the house. Deposit all plastic in asbestos waste disposal bags. DO NOT YET REMOVE THE PLASTIC OUTSIDE THE EXIT DOOR.

☐ Check that you have collected all debris and securely sealed all waste disposal bags. Make sure all loose debris is double bagged in asbestos waste disposal bags, properly labeled and sealed with duct tape. These bags must also specify the asbestos warning sign required by Labor and Industries or OSHA.

☐ Wipe surfaces, floors, and tools. Using clean rags wet wipe all horizontal surfaces and floors.

☐ Wipe off scraping tools. Place tools in a bucket or plastic bag for more thorough cleaning later.

☐ Dispose of all contaminated wipe rags as asbestos debris in a sealed asbestos waste disposal bag.


*Never attempt to vacuum or sweep up asbestos debris. This will cause any fibers present to become airborne in your house.*

☐ Stand on the last piece of plastic sheeting outside the designated exit door.

☐ Spray yourself (or each other) with water to wet down any asbestos debris/fibers on the outside of your respirator and disposable coveralls.

☐ Remove boots, gloves and coveralls. Remove your disposable gloves and coveralls by peeling them off and turning them inside out as you remove them. Double bag them in asbestos waste disposal bags. Dispose of boots as contaminated waste or put them in a plastic bag for cleaning later. Step off the last plastic sheet.
ARE YOU PREPARED TO TAKE ON THIS PROJECT?

It is essential that you are aware of all the challenges and risks of tackling an asbestos removal project yourself. It can be time consuming, messy, expensive, and dangerous to your health if not performed correctly.

Before you begin any asbestos removal project, you must be able to answer “yes” to all the following questions:

Are you sure there is asbestos in your flooring?

Not all sheet vinyl flooring has asbestos backing. To know for sure, submit a flooring sample for laboratory analysis. Cost for such testing is minimal, typically $25 per sample. Laboratories are listed in the yellow pages of your phone book under “Asbestos — Consulting and Testing.”

If you decide not to check for asbestos, assume the flooring contains asbestos and answer “Yes.”

Y

N

BE SMART

WARNING

Remove respirators and take out their filters. Discard the filters with other asbestos waste.

Clean safety gear. Using clean wet rags, wash off and wipe down your respirator, goggles, boots, and tools used in the removal. Move each item off the plastic as it is cleaned.

Double bag all remaining debris, including all cleaning rags, disposable items, and the last plastic sheet in asbestos waste disposal bags. Tightly seal each bag with duct tape.

Take a shower.

DISPOSAL

10. Prepare and check all waste disposal bags.

All debris must be properly packaged for disposal: double bagged inside pre-labeled 6-mil bags designed specifically for asbestos waste disposal. Tops should be twisted and securely taped down. If you haven’t already done so, use a permanent marker pen to write your last name, address, and date of removal on each bag. These bags must also specify the asbestos warning sign required by Labor and Industries or OSHA.

11. Transfer bags to an approved disposal site.

Don’t forget to complete an asbestos waste material shipment record which can be downloaded from our web site at www.pscleanair.org.

All double-bagged or wrapped debris must be hauled to the disposal site or transfer station in a covered vehicle within 10 calendar days of being generated.

Asbestos debris from an asbestos project must be disposed of only at disposal sites or transfer stations authorized to receive such waste. A list of disposal sites can be found on our web site www.pscleanair.org. Call individual sites for disposal fees and any additional requirements they may have for disposal.

Debris must be legally disposed of within 10 calendar days of being removed. If you must store the packaged debris prior to disposal, store it in a secured area, such as a locked basement or garage.
How to Properly Remove Sheet Vinyl Flooring with Asbestos Backing

From Owner-Occupied, Single-Family Residences Only

This publication details the steps necessary for the safe removal of sheet vinyl flooring with asbestos backing from an owner-occupied, single-family home. The term *single-family home* includes houses, mobile homes, trailers, detached garages, houseboats, and houses with a "mother-in-law apartment" or "guest room." This term does not include rental property or multiple-family units, nor does it include any mixed-use building that contains a residential unit. Be aware that no set of instructions can anticipate all possible situations and variables that a homeowner may encounter in an asbestos removal project.

It is essential that you read these instructions from start to finish, making sure you thoroughly understand them before disturbing your vinyl flooring in any way. Failure to do so poses a severe health risk to you and your family.

Puget Sound Clean Air Agency strongly recommends that you hire a state-certified asbestos abatement contractor. However, if after reading this instruction manual you still choose to do the work yourself, it is critical that you follow each step completely and carefully — from site preparation to disposal — so that your removal project is effective, safe, and legal.

Exposure to airborne asbestos may cause cancer or other lung diseases. Puget Sound Clean Air Agency assumes no liability or responsibility for house damage, injuries, illnesses, or related health problems arising from you performing an asbestos removal project. You assume all risks involved.

This publication is limited to the removal of sheet vinyl flooring, one of the three most common asbestos abatement projects attempted by homeowners. Puget Sound Clean Air Agency also provides free information about removing "popcorn" ceilings and cement asbestos-board siding. This publication can be downloaded from our web site at www.pscleanair.org.