
Asbestos Removal Procedures for Homeowners

How to Properly Remove Cement Asbestos-Board Siding (Single-Family, Owner-Occupied Residences Only)

IMPORTANT: Read these procedures from start to finish, making sure you thoroughly understand them, before undertaking any asbestos removal.



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NOTE: This publication is limited to the removal of cement asbestos-board siding, one of the four most common asbestos abatement projects attempted by homeowners. The other three are asbestos-backed sheet vinyl flooring, octopus furnace and duct insulation, and spray-on "popcorn" ceilings. Olympic Region Clean Air Agency also provides free removal procedure information for these projects. They may be ordered by calling Olympic Region Clean Air Agency at (360) 539-7610 or 1-800-422-6308."

Before You Begin

Are you sure your siding contains asbestos?

Submit a small sample for laboratory analysis. Cost for such testing is minimal. Laboratories are listed in the yellow pages under “Asbestos - Consulting & Testing.” To take a sample, wet and break off a small piece of siding (about one square inch) and place it inside a zip lock plastic bag.

If, for some reason, you decide not to check your siding for asbestos content, assume it contains asbestos and treat it accordingly.

If your siding does contain asbestos, are you sure you *really* want to remove it?

Remember, asbestos is a problem only if fibers are released to the air. Unless cement asbestos-board siding is being disturbed, it will not release asbestos fibers. Hence, the safest, easiest, and least-expensive option may be to leave it alone.

Sometimes, it is possible to work around asbestos without removing it. However, if asbestos-containing siding must be disturbed as part of a remodeling project, then removal may be your only option.

Words of Caution

You Should Know...

Your only legal options to remove asbestos from your home is to hire a certified asbestos abatement contractor or do the work yourself. The law prohibits you from hiring anyone other than a certified asbestos abatement contractor to perform asbestos removal work. Family members and friends may participate, provided they do so on a voluntary, no-pay basis.

Be advised that the removal procedures described in this publication are intended to help home owners minimize the health risks associated with “do it yourself” asbestos removals. However, it should be understood that removing asbestos from your home can be dangerous. Some release of asbestos fibers into the air is unavoidable and there are no known safe levels of asbestos exposure.

Be aware that no set of instructions can address all possible situations and variables that a homeowner may encounter in an asbestos removal project. In this publication, we have tried to address the more common and most important issues involved in removing cement asbestos-board siding.

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

The work will be difficult

It is important to note that even under the best of circumstances, home owner-performed asbestos projects can be physically demanding and potentially dangerous.

- Breathing through a respirator is more difficult than normal breathing and places an additional stress on your heart and lungs.
- Protective clothing can become hot and uncomfortable.
- Work can involve ladders and high spaces.
- 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.

**The Olympic Region Clean Air Agency
assumes no liability or responsibility
for injuries, illnesses, or related
health problems arising from your
performing an asbestos removal
project. You assume all risks involved.**

Removal Procedures

Application/Permit

Prior to removing asbestos, you are required to file an application (plus fee) with the Olympic Region Clean Air Agency. Call (360) 586-1044 or 1-800-422-5623 for a copy of this form. You may also get it online at www.orcaa.org or by visiting our Olympia office at 2940-B Limited Lane NW, Olympia 98502, between 8:00 a.m. and 4:30 p.m., Monday through Friday.

After processing your application, Olympic Region Clean Air Agency will furnish you with a signed copy that effectively serves as a permit for you to perform the work. This form will also allow you to dispose of asbestos waste debris at an approved asbestos waste facility.

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

- **Worker protection:** During removal, you will need to protect yourself from breathing or spreading asbestos fibers by wearing an appropriate respirator, disposable coveralls, goggles, disposable gloves, and rubber boots (or shoes that may need to be thrown out after the project).
- **Wetting:** Wetting is critical to asbestos fiber control. Before, during, and after removal, asbestos siding should be thoroughly wetted with water in order to keep asbestos fibers out of the air. Once removed, asbestos debris should be kept wet until packaged and sealed for disposal.
- **Containment:** You will need to contain your asbestos debris and minimize the release of asbestos fibers. The ground at the base of walls from which siding is removed must be covered with plastic sheeting to ensure that all debris is captured and contained for disposal.
- **Avoiding breakage:** Minimizing the breakage of asbestos siding during removal and handling will help keep asbestos fibers from being released into the air.

Personnel & Supplies

Workers

Although it is possible for one homeowner to do a siding removal job, the task can be more effectively carried out by two workers. With two workers, one can concentrate on carefully removing pieces of siding while the other keeps the materials wet and packages debris as it is generated.

Important: *It is illegal to hire anyone other than an asbestos abatement contractor to perform, or assist in, the removal of asbestos.*

Protective equipment & clothing

Before beginning your project, you'll need to obtain the following items:

- **Respirators** - half-face, dual-cartridge respirators, each equipped with a pair of HEPA filters (color coded purple), are required. Request a fit test from the vendor to ensure a proper fit. Respirators provide little protection if they do not fit properly. One respirator is recommended for each person working with the siding material.

Note: Persons with beards cannot be adequately fitted with this type of respirator and should not participate in asbestos abatement work.

- **Coveralls** - Several pairs of disposable coveralls with built-in booties should be purchased. Oversized coveralls make it easier for workers to move around. Every time a worker leaves the plastic laid around the removal area, coveralls should first be removed and disposed of in properly sealed asbestos disposal bags. New coveralls should be donned upon the workers return.
- **Rubber boots** - These are highly recommended so that coverall booties do not wear through. Rubber boots can be washed off later or disposed of as contaminate debris.
- **Eye protection** - Each person removing asbestos siding should wear non-fogging goggles or safety glasses.
- **Durable rubber gloves** - Several pairs of durable, disposable rubber gloves should be purchased at least enough to supply a pair to each worker per shift. Every time a worker leaves the work area during a removal project, these gloves should be wetted and disposed of in properly sealed asbestos disposal bags. A new pair of gloves should be donned with each re-entry.

Tools & Supplies

- **Garden hose** - A hose, equipped with an automatic shut-off spray nozzle, will be needed to supply water at the entrance to the work area.
- **Water sprayer** - A pint-size spray bottle or garden pump sprayer will be used to wet asbestos-containing materials.
- **Liquid dish washing detergent** - To be mixed with water to produce best results when wetting asbestos.

- **Removal tools:**

- A pry bar for lifting nails. A bar equipped with a blade at least two inches wide is best.

- A nail puller or nail-head cutter.

- A knife or scissors to cut polyethylene sheeting.

- **Six-mil polyethylene plastic sheeting** - This will be used to cover a six-foot strip of ground at the base of walls from which siding is being removed and a transition zone for entering and exiting the work area. Other uses may include wrapping containers of

removed siding if pre-marked asbestos waste disposal bags are not used for this purpose.

- **Debris containers** - Cardboard boxes, burlap bags, or other sturdy containers will be needed to help keep the sharp edges and corners of siding debris from puncturing plastic disposal bags. Plastic bags or sheeting that has been punctured will not be accepted by waste disposal sites.

- **Asbestos waste disposal bags** - If removed siding is to be bagged rather than wrapped, assume you'll need one dozen bags per 100 square feet of siding removed. If siding is to be wrapped rather than bagged, disposal bags may be needed only for daily disposal of sheet plastic ground cover, disposable coveralls, gloves, etc.

- **Duct tape** - Several rolls should be purchased for sealing disposal bags or wrapped debris.

Note: *Asbestos-specific equipment and materials may be purchased at the safety equipment vendors listed in the "Safety Equipment and Clothing" in the yellow pages of your phone book.*

Prep Work

As you prepare to remove the siding, remember that your safety objectives are to keep asbestos fibers out of the air. To do this, you will need to minimize breakage, keep the siding wet, and contain all debris.

1. Post signs warning any "drop-in" friends, family, and other visitors of the work taking place.
2. To the extent that landscaping and terrain will allow, lay a six-foot wide strip of 6-mil sheet plastic along the side of the house where removal is to occur. Try to work in the shade so the wetted siding will remain wet.

3. Create an entrance/exit "transition" zone to the work area by laying down an additional six-foot by six-foot piece of sheet plastic in a convenient location next to the plastic strip along the wall. Keep a plastic disposal bag at this location.

4. Thoroughly hose down about 50 square feet of siding.

5. Mix approximately 1 teaspoon of liquid dish-washing detergent with water in the pint size spray bottle or about one half cup of detergent in a garden pump sprayer.

6. Removal workers should now put on a pair of disposable coveralls. They should then put on gloves, goggles, boots, and respirators equipped with HEPA filters.

Removing the Siding

1. Remove pieces of siding by pulling nails or cutting nail heads so as to minimize breakage. If necessary, carefully lift siding pieces with pry tool to expose nail heads.

2. If siding should begin to crack or crumble, immediately wet the cracked or broken areas with the pint size spray bottle or garden pump sprayer. Breakage releases asbestos fibers.

3. Wet the back of each piece of siding as it is removed.

4. Carefully lower removed siding to the ground. Do not throw or drop it.

5. Keep all debris on the plastic strip at the base of the wall and keep it wet until packaged and sealed.

Note: *Once removal work begins, do not leave the plastic without first removing disposable coveralls and other protective equipment at the "transition zone." Each re-entry onto the plastic will require a new pair of coveralls and gloves.*

Cleaning Up

1. Load wetted debris and other contaminated materials into sturdy containers like cardboard boxes or burlap sacks. If cardboard boxes are used, line each box with 6 mil polyethylene and leave enough excess plastic to cover the debris and seal the plastic-covered debris with duct tape. Boxes should then be wrapped in one or more layers of 6-mil plastic or inserted into a single pre-marked asbestos waste disposal bag.

2. Double bag or wrap other filled containers in pre-marked 6-mil asbestos waste disposal bags. Twist top of each filled bag, bend twisted part in half and seal it with duct tape. If containers are to be wrapped rather than bagged, use 6-mil polyethylene

plastic and ensure all seams are sealed with duct tape. Affix an asbestos warning label to each sealed package.

3. At the end of each work shift, re-wet any debris on the strip of plastic next to the wall. While continuing to stand on the plastic strip next to the wall where the removal is being done, double bag or wrap all debris as described above. Then wrap or roll up the strip of plastic along the wall, working your way back to the entrance/exit “transition zone” strip of plastic. Step onto the transition zone plastic and double bag or wrap the last of the strip plastic.

Decontamination

1. While standing on this last piece of plastic sheeting, spray yourself (or each other) with water to wet down any asbestos debris/fibers on the outside of your respirator and disposable coveralls.

2. Remove boots. Then remove your disposable gloves and coveralls by peeling them off and turning them inside out as you remove them. Leave these contaminated items on the transition zone plastic for disposal. Step off the last plastic sheet.

3. Take off respirators and remove their filters for disposal. Then wash off and wipe down the tools used in removal, along with your respirators, goggles and boots. Move each item off the

plastic as it is cleaned.

4. Double bag remaining debris, transition zone plastic, and disposable items in properly labeled asbestos disposal bags or double wrap them in 6-mil plastic sheets. Tightly seal each bag or package tightly with duct tape. Use wet rags for any further clean-up. *Never attempt to vacuum or sweep up asbestos debris.* This will cause any fibers present to become airborne.

5. Take a shower.

Disposal

1. Asbestos debris from an asbestos project must be disposed of at disposal sites or transfer stations licensed to receive such waste. A list of such sites may be obtained by calling (360) 586-1044 or 1-800-422-6308 or on our website, www.orcaa.org. Call the individual sites for disposal fees.

2. A copy of your ORCAA-approved application, signed by the agency, must be presented at the disposal facility.

3. All debris must be sealed in two layers of 6-mil polyethylene plastic. Remember, siding pieces have sharp edges that can perforate this plastic material unless the siding is first loaded into

sturdy containers. Packaged debris in punctured plastic will not be accepted by waste disposal sites. You must write your last name, address, and date of removal on each container. Check with the disposal site for any additional requirements.

4. Debris must be legally disposed of within 10 calendar days of being generated. If you must store the packaged debris prior to disposal, store it in a secured area, such as a locked basement or garage.

5. All double-bagged or wrapped debris must be hauled to the disposal site or transfer station in a covered vehicle.
