How to Remove Nonfriable Vinyl Asbestos Floor Tiles
A Guide for Meeting DEQ Rules

Purpose
The Department of Environmental Quality (DEQ) regulates the removal, handling and disposal of asbestos-containing materials during construction, remodeling, and demolition. This document provides guidance for removing nonfriable vinyl asbestos floor tiles (VAT).

Before you start
Contact one of the DEQ regional offices (see contact information to the right) for information on complying with Oregon’s asbestos program regulations.

If the project is taking place in a school (K-12), you must comply with the Asbestos Hazard Emergency Response Act (AHERA) rules from the U.S. Environmental Protection Agency (EPA). Contact the EPA’s regional office at 800-424-4372 for current rule and policy information.

Oregon Occupational Safety and Health Administration (OR-OSHA) also has rules for working with asbestos-containing materials. Contact OR-OSHA at 503-378-3272 for current rule and policy information.

How to determine if a material contains asbestos
The only way to determine if a material contains asbestos is to take a sample and have it analyzed by an accredited laboratory. Vinyl asbestos floor tile can be assumed to contain asbestos and should be handled appropriately.

What are vinyl asbestos floor tiles?
Vinyl floor tiles, both 9” x 9” and 12” x 12” in size, often contain asbestos. The vinyl acts as a binder that holds the asbestos fibers within a solid matrix. This will prevent asbestos fibers from being released easily, unless mishandled, damaged, or in badly worn condition. In most cases, vinyl floor tiles are considered nonfriable.

Vinyl floor tiles should not be confused with sheet vinyl flooring that can have an asbestos backing. Sheet vinyl products are always considered friable and the regulations for removing friable asbestos-containing materials outlined below must be followed.

Removing nonfriable asbestos-containing materials
The removal of nonfriable asbestos-containing materials in good condition is exempt from some DEQ rules. You do not need to be a DEQ licensed asbestos contractor or a DEQ certified asbestos worker to do nonfriable asbestos removal. If you remove vinyl asbestos floor tiles following this guide, they should remain in a nonfriable condition.

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Suggested safety equipment

Eye Protection: Each person should wear non-fogging goggles or safety glasses.

Respirator: Each person should wear a dual cartridge respirator equipped with two HEPA (high efficiency particulate air) filters. The HEPA cartridges are color-coded purple or magenta. Make sure that your respirator fits properly.

Gloves: Each person should wear gloves.

Coverall: Each person should wear a Tyvek coverall to keep dust off your clothing and then dispose of it (with the asbestos-containing material) after the project is complete.

Boots: Use a lace-less, pull-on type of rubber boot to protect your feet from sharp edges and nails and then wash to remove asbestos contamination.

Tools needed
- Water sprayer, garden type or spray bottle, or a garden hose with spray nozzle
- 3 to 6-mil thick plastic sheeting
- Wide putty knives, paint scraper or flat floor scraper
- Leak-tight containers, such as plastic bags, barrels or plastic wrapping
- Burlap bags or cardboard boxes

The work will be difficult
Even under the best conditions these projects are physically demanding and potentially dangerous. The following are some of the problems you will be faced with:
- Breathing through a respirator is difficult and places extra stress on the heart and lungs.
- Coveralls can be hot and hard to move around in.
- Work is done mostly on your hands and knees, or while bent over.
- Goggles and safety glasses reduce visibility and field of vision.
- Care must be taken around electric wires because water is being used to keep the asbestos wet.
- The work area will be slick from wetting and become a slipping hazard.

Notification
File a DEQ notification form ASN 6 for removal of nonfriable asbestos materials and pay the applicable fee. The notification must be received by the DEQ Business Office at least 5 days prior to starting the removal project. If you are the owner occupant of a single-family dwelling doing asbestos removal on the home you live in, you do not need to file a notification.

Procedures for removing nonfriable vinyl asbestos floor tiles
Vinyl asbestos floor tiles must be removed, handled and disposed of in a manner that keeps the material in predominantly whole pieces to be considered nonfriable.
The method of removal cannot shatter (broken into 4 or more pieces), crumble, pulverize, or reduce the material to dust. Sanding, sawing, grinding, chipping, or the use of power tools is not allowed.

**Step 1** – Use the plastic sheeting to isolate doorways and cover floor registers, vents, and other surfaces to prevent contamination from asbestos fibers.

**Step 2** - The tiles must be kept wet during removal. The floor area should be soaked for at least two hours before removal; this may help loosen the tiles and make them easier to remove. If there is cement under the tiles, you may want to flood the floor with water the night before you begin removal. Wetting minimizes asbestos fibers from being released. The tiles must remain wet during removal and until waste disposal occurs.

**Step 3** - Use a wide putty knife or flat floor scraper and gently pry up the tiles. Keep the tiles in whole pieces, do not break material on purpose, do not step on material, and do not drop material. Place the material on the ground in a non-work area or in separate containers to prevent breakage. Once the material has been removed, it may not be broken further.

Note: If the material cannot be removed without shattering (broken into more than 4 pieces) it, you must follow the requirements for friable asbestos-containing materials.

**Step 4** - For projects involving a very small area of 1 to 3 tiles, a heat gun (not a hair dryer), dry ice, or solvent may be used to assist in the removal of the tiles. If you use solvent, make sure the area is well ventilated.

**Step 5** - Place the vinyl asbestos floor tiles in a leak-tight container and mark it with the warning statement “DANGER ASBESTOS-CONTAINING MATERIAL”. You may use burlap bags or a cardboard box as a liner inside the leak-tight container to minimize rips and tears.

**Step 6** - Locate a landfill that is authorized to accept asbestos waste and be sure to inquire about hours of operation and any special packaging requirements they might have. Fill out a DEQ Waste Shipment Report ASN 4 and give it to the landfill upon arrival.

**If the material becomes friable**
If the vinyl asbestos floor tiles become shattered, damaged, or is badly worn, it is considered friable and may release asbestos fibers. If the tiles become friable, stop work immediately and promptly contact a DEQ licensed asbestos abatement contractor. Friable asbestos materials must be removed by a **DEQ licensed asbestos contractor using DEQ certified workers**.

All asbestos abatement rules under OAR 340-248-0005 through -0280 must be followed. A DEQ notification form ASN 1 for the removal of friable asbestos and the applicable fee must be filed. The notification must be received by the DEQ Business Office at least 10 days prior to starting the
removal project. For emergency situations a waiver of the 10-day period may be granted by the DEQ. For more information contact DEQ.

**Alternative Formats**

*Alternative formats of this document can be made available. Contact DEQ for more information at 503-229-5696.*