How to Remove Nonfriable Asbestos-Containing Petroleum-Based Roofing Materials
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 asbestos-containing petroleum-based roofing materials. If you have cement asbestos roofing materials, please follow the guidance on removing cement asbestos products.

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. Roofing can have multiple layers of different products and each layer should be sampled.

What are asbestos-containing petroleum-based roofing materials?
While the use of asbestos in petroleum-based roofing materials was mostly phased out during the 1980s, many homes, commercial buildings and schools still have roofs made of materials that contain asbestos. The most common petroleum-based roofing products are roofing felts, coatings and patch compounds, rolled roofing and built-up roofing. The petroleum-based asphalt in the products 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 weathered condition. In most cases, petroleum-based roofing materials are considered nonfriable. If the petroleum-based roofing material is hard, dry or brittle it is considered friable and you must follow the requirements for friable asbestos-containing materials.

Removing nonfriable asbestos-containing materials
The removal of nonfriable asbestos-containing petroleum-based roofing materials in good condition is exempt from many 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 asbestos-containing petroleum-based roofing materials following this guide, they should remain in a nonfriable condition.

**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**
- Garden type water sprayer or a garden hose with spray nozzle
- Wide flat “L” shaped pry bar
- Nail puller, vise grip, pliers, or others means of removing nails
- Heavy duty wire cutters
- Shovel or flat scraper for lifting roofing
- 3 to 6-mil thick plastic sheeting
- Leak-tight containers, such as plastic bags, barrels or plastic wrapping

**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 will involve the use of ladders to get to roof areas.
- Goggles and safety glasses reduce visibility and field of vision.
- Care must be taken around electric wires because water is being used to keep asbestos wet.
- The work area will be slick from wetting and become a slipping hazard.

**Notification**
There is no notification requirement for nonfriable petroleum-based roofing materials.
Procedures for removing nonfriable asbestos-containing petroleum-based roofing materials

Asbestos-containing petroleum-based roofing materials must be removed, handled and disposed of in a manner that keeps the material in nonfriable condition. Sanding, sawing, grinding, chipping, or the use of power tools is not allowed.

Step 1 - Keep the material wet while you remove it. Wetting minimizes asbestos fibers from being released during removal. The material should remain wet during removal and until waste disposal occurs.

Step 2 - Put plastic sheeting on the ground under the work area to contain pieces that may fall.

Step 3 - Gently pry up material using a flat bar or similar tool so that the nail heads are exposed and can be pulled out, or clipped off with heavy-duty wire cutters.

Step 4 - Take roofing materials off in as many whole pieces or sections as possible. Do not damage material on purpose, do not drop material, do not throw material from ladders or roof and do not drive over material. The method of removal cannot shatter, crumble, pulverize, or reduce the material to dust. Place the material on the ground in a non-work area or in separate containers.

Note: If the material cannot be removed without shattering it, is damaged, badly weathered, hard, dry or brittle you must follow the requirements for friable asbestos-containing materials.

Step 5 – 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 asbestos-containing petroleum-based roofing materials become shattered, damaged, is badly weathered, hard, dry or brittle it is considered friable and may release asbestos fibers. If the roofing materials 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.