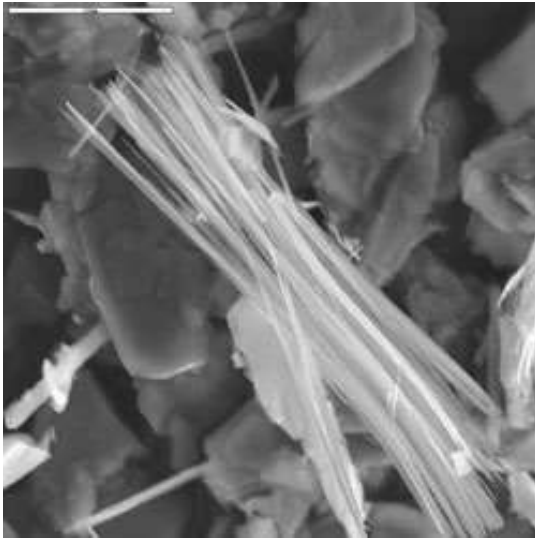




**ENVIRONMENTAL
QUALITY**
AIR QUALITY

Utah Asbestos Hazards during Abatement and Renovation Activities



Tremolite Asbestos (Image Source: U.S. Geological Survey)

Utah DAQ/ATLAS Section
195 North 1950 West
PO Box 144820
Salt Lake City, Utah 84114-4820
Phone (801) 536-4000
Email: asbestos@utah.gov
<http://www.asbestos.utah.gov>

Caution!

Do not dust, sweep, or use regular, non-HEPA (high efficiency particulate air) vacuum on debris that may contain asbestos. These steps will disturb tiny asbestos fibers and may release them into the air. Remove dust by wet mopping or with a special HEPA vacuum cleaner used by trained and certified asbestos contractors.

What Is Asbestos?

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals with high tensile strength, and with resistance to heat and most chemicals. Some have the ability to be woven. Because of these properties, asbestos fibers were added to a variety of products to strengthen them and to provide insulation and fire resistance.

There are several types of asbestos fibers. The Toxic Substances Control Act (TSCA) defines asbestos as the asbestiform varieties of chrysotile (serpentine), crocidolite (riebeckite), amosite (cummingtonite/grunerite), anthophyllite, tremolite, and actinolite.

The use of asbestos in the United States has declined substantially and mining of asbestos in the United States ceased. Nevertheless, many asbestos products remain in use and new asbestos-containing products continue to be manufactured in or imported into the United States. Asbestos can be positively identified only with a special type of microscope. “Asbestos” and “asbestiform” are two commonly used terms that lack mineralogical precision. The National Institute for Occupational Safety and Health (NIOSH) has indicated that further research is needed to better understand health risks associated with exposure to other thoracic-size elongate mineral particles (EMPs). For more information, see [Current Intelligence Bulletin 62](#) (updated April 2011)

How Can Asbestos Affect My Health?

From studies of people who were exposed to asbestos in factories and shipyards, we know that breathing high levels of asbestos fibers can lead to an increased risk of lung disease. Three of the major health effects associated with asbestos exposure includes:

- **Asbestosis** -- is a serious, progressive, long-term non-cancer disease of the lungs. It is caused by inhaling asbestos fibers that irritate lung tissues and cause the tissues to scar. The scarring makes it hard for oxygen to get into the blood. Symptoms of asbestosis include shortness of breath and a dry, crackling sound in the lungs while inhaling. There is no effective treatment for asbestosis.

- **Lung Cancer** -- causes the largest number of deaths related to asbestos exposure. People who work in the mining, milling, manufacturing of asbestos, and those who use asbestos and its products are more likely to develop lung cancer than the general population. The most common symptoms of lung cancer are coughing and a change in breathing. Other symptoms include shortness of breath, persistent chest pains, hoarseness, and anemia.
- **Mesothelioma** -- is a rare form of cancer that is found in the thin lining (membrane) of the lung, chest, abdomen, and heart and almost all cases are linked to exposure to asbestos. This disease may not show up until many years after asbestos exposure. This is why great efforts are being made to prevent school children from being exposed.

The risk of lung cancer and mesothelioma increases with the number of fibers inhaled. The risk of lung cancer from inhaling asbestos fibers is also greater if you smoke. People who get asbestosis have usually been exposed to high levels of asbestos for a long time. The symptoms of these diseases do not usually appear until about 20 to 30 years after the first exposure to asbestos. Most people exposed to small amounts of asbestos, as we all are in our daily lives, do not develop these health problems. However, if disturbed, asbestos material may release asbestos fibers, which can be inhaled into the lungs. The fibers can remain there for a long time, increasing the risk of disease. Airborne asbestos fibers have no odor or taste. If you are concerned about possible exposure, consult a physician who specializes in lung diseases (pulmonologist). For more information on the health effects of asbestos exposure see at [The Agency for Toxic Substances and Disease Registry's Website](#) or at [The American Lung Association](#).

Where Can I Find Asbestos And When Can It Be A Problem?

Most products made today do not contain asbestos. Those few products made which still contain asbestos that could be inhaled are required to be labeled as such. However, until the 1970s, many types of building products and insulation materials used in construction and repair contained asbestos. Old and brittle asbestos products can release tiny, microscopic, fibers. These fibers can remain suspended in the air and enter your lungs when you inhale. Asbestos material that would crumble easily if handled, or that has been sawed, scraped, or sanded into a powder, is more likely to create a health hazard. Examples of where asbestos hazards may be found, common products that might have contained asbestos in the past, and conditions which may release fibers, include:

- STEAM PIPES, BOILERS, FURNACE DUCTS, or WATER PIPES insulated with a block, blanket, paper, or tape. These insulation materials may be asbestos-containing, and may release asbestos fibers if damaged, repaired, or removed improperly.
- RESILIENT FLOOR TILES (vinyl, asphalt, and rubber), VINYL SHEET FLOORING backing, and ADHESIVES used for installing flooring. Sanding tiles can release fibers, so may scraping or sanding the backing of sheet flooring during removal.
- CEMENT SHEETS, MILLBOARD, and PAPER used as ceiling, wall or floor insulation around furnaces and wood burning stoves. Repairing, modifying or removing units may release asbestos fibers. Cutting, tearing, sanding, or drilling asbestos-containing insulation will release asbestos.
- CEMENT PIPE used for water, sewer or exhaust flue. Repairing, crushing or removing pipe may release asbestos fibers.
- GASKETS in furnaces, boilers, wood stoves, oil stoves, and coal stoves. Worn seals can release asbestos fibers during use.
- SOUNDPROOFING (acoustical material) OR DECORATIVE MATERIAL sprayed on walls and ceilings or CEILING TILE. Loose, crumbly, or water-damaged material may release fibers, so will sanding, drilling or scraping the material.
- ROOFING, SHINGLES, and SIDING. Cement or asphalt products are not likely to release asbestos fibers unless sawed, drilled, cut, or if the material is in poor condition.
- ATTIC and WALL INSULATION,, PACKAGING or POTTING SOIL using vermiculite, particularly ore that originated from a Libby, Montana mine. Prior to its closure in 1990, much of the world's supply of vermiculite came from the Libby mine. This mine had a natural deposit of asbestos which resulted in the vermiculite being contaminated with asbestos. (See [Protect Your Family from Asbestos-Contaminated Vermiculite Insulation](#)).
- ARTIFICIAL ASHES and EMBERS sold for use in gas-fired fireplaces. Also, other older products, textiles, such as fireproof gloves, stove-top pads, ironing board covers, and certain hairdryers.
- Automobile brake pads and linings, clutch facings, transmission parts and gaskets.

What Should Be Done About Asbestos?

If you think asbestos may be in your school, business, or residential facility don't panic. Usually the best thing is to leave asbestos material that is in good condition alone. Generally, material in good condition will not release asbestos fibers.

Check material regularly if you suspect it may contain asbestos. Don't touch it, but look for signs of wear or damage such as tears, abrasions, or water damage. Damaged material may release asbestos fibers. This is particularly true if you often disturb it by hitting, rubbing, or handling it, or if it is exposed to extreme vibration or air flow.

If asbestos-containing material is becoming damaged (i.e., unraveling, frayed, breaking apart) you should immediately isolate the area (keep pets and children away from the area) and refrain from disturbing the material (either by touching it or walking on it). You should then immediately contact an asbestos professional for consultation. In such a scenario as described above, asbestos-containing material does not necessarily need to be removed, but may rather be repaired by an asbestos professional via encapsulation or enclosure. Removal is often unnecessary.

Sometimes the best way to deal with slightly damaged material is to limit access to the area and not touch or disturb it. Discard damaged or worn asbestos gloves, stove-top pads, or ironing board covers. Check with the DAQ, your local health departments, or other appropriate officials to find out proper handling and disposal procedures.

If asbestos material is more than slightly damaged, or if you are going to make changes in your school, business, or residential facility that might disturb it, repair or removal by a professional is needed. Before you have your school, business, or residential facility remodeled, find out whether asbestos materials are present by having it inspected by a certified asbestos inspector. It is best to receive an assessment from one firm and any needed abatement from another firm to avoid any conflict of interest. The Utah Division of Air Quality (DAQ) has a list of [certified asbestos companies](#).

How to Identify Materials That Contain Asbestos

You can't tell whether a material contains asbestos simply by looking at it, unless it is labeled, and labels can be wrong. If in doubt, treat the material as if it contains asbestos or have it sampled and analyzed by a qualified and certified professional. Taking samples yourself is not recommended. A professional should take samples for analysis, since a professional knows what to look for, how many samples of a material to take, and because there may be an increased health risk if fibers are released. In fact, if done incorrectly, sampling can be more hazardous than leaving the material alone. Material that is in good condition and

will not be disturbed (by remodeling, for example) should be left alone. Only material that is damaged or will be disturbed should be sampled. Anyone who samples asbestos-containing materials should have as much information as possible on the handling of asbestos before sampling, and at a minimum, should observe the following procedures:

- Make sure no one else is in the room when sampling is done.
- Wear disposable gloves or wash hands after sampling.
- Shut down any heating or cooling systems to minimize the spread of any released fibers.
- Do not disturb the material any more than is needed to take a small sample
- Place a plastic sheet on the floor below the area to be sampled.
- Wet the material using a fine mist of water containing a few drops of detergent before taking the sample. The water/detergent mist will reduce the release of asbestos fibers.
- Carefully cut a piece from the entire depth of the material using, for example, a small knife, corer, or other sharp object. Place the small piece into a clean container (for example, a 35 mm film canister, small glass or plastic vial, or high quality resealable plastic bag).
- Tightly seal the container after the sample is in it.
- Carefully dispose of the plastic sheet. Use a damp paper towel to clean up any material on the outside of the container or around the area sampled. Dispose of asbestos materials according to state and local procedures.
- Label the container with an identification number and clearly state when and where the sample was taken.
- Patch the sampled area with appropriate material to prevent fiber release.
- Analyze asbestos sample, use an accredited laboratory. The National Voluntary Laboratory Accreditation Program (NVLAP) at the National Institute of Standards and Technology (NIST) provides a [directory of NVLAP accredited laboratories](#)

How to Manage an Asbestos Problem

If the asbestos material is in good shape and will not be disturbed, do nothing! If it is a problem, there are two types of corrections, repair and removal. Major or minor repairs or removal must be done only by a professional trained in methods for safely handling asbestos since there is always a risk of exposure to fibers when asbestos is disturbed. Doing repair or removal yourself is not recommended since improper handling of asbestos materials can create a hazard where none existed, and it may be a violation of Utah or federal regulations.

Repair usually involves either sealing or covering asbestos material.

- Sealing (encapsulation) involves treating the material with a sealant that either binds the asbestos fibers together or coats the material so fibers are not released. Pipe, furnace and boiler insulation can sometimes be repaired this way.
- Covering (enclosure) involves placing something over or around the material that contains asbestos to prevent release of fibers. Exposed insulated piping may be covered with a protective wrap or jacket.

With any type of repair, the asbestos remains in place. Repair is usually cheaper than removal, but it may make later removal of asbestos, if necessary, more difficult and costly.

Removal is usually the most expensive method and, unless required by state or local regulations, should be the last option considered in most situations. This is because removal poses the greatest risk of fiber release, and improper removal may actually increase the health risks to you and other occupants. However, removal may be required when remodeling or making major changes to your school, business, or residential facility that will disturb asbestos material. Also, removal may be called for if asbestos material is damaged extensively and cannot be otherwise repaired.

Asbestos Do's and Don'ts

- Do keep activities to a minimum in any areas having damaged material that may contain asbestos.
- Do take every precaution to avoid damaging asbestos material.
- Do have removal and major repair done by people trained and qualified in handling asbestos. It is highly recommended that sampling and minor repair also be done by asbestos professionals. [List of Utah certified asbestos companies](#)

- Do wet, wetting helps reduce the chance of spreading asbestos fibers in the air.
- Don't dust, sweep, or vacuum debris that may contain asbestos. A regular vacuum cleaner must never be used.
- Don't saw, sand, scrape, or drill holes in asbestos materials.
- Don't use abrasive pads or brushes on power strippers to strip wax from asbestos flooring. Never use a power stripper on a dry floor.
- Don't sand or try to level asbestos flooring or its backing. When asbestos flooring needs replacing, install new floor covering over it, if possible.
- Don't track material that could contain asbestos through the school, business, or residential facility. If you cannot avoid walking through the area, have it cleaned with a wet mop. If the material is from a damaged area, or if a large area must be cleaned, call an asbestos professional.

Asbestos Professionals: Who Are They and What Can They Do?

Asbestos professionals are trained in handling asbestos material. The type of professional will depend on the type of product and what needs to be done to correct the problem. You may hire a general asbestos contractor or, in some cases, a professional trained to handle specific products containing asbestos.

Asbestos professionals can conduct inspections, take samples of suspected material, assess its condition, and advise about what corrections are needed and who is qualified to make these corrections. Once again, material in good condition need not be sampled unless it is likely to be disturbed. Professional abatement contractors repair or remove asbestos materials.

Some firms offer combinations of testing, assessment, and correction. A professional hired to assess the need for corrective action should not be connected with an asbestos-correction firm. It is better to use two different firms so there is no conflict of interest. Services vary from one area to another.

Utah requires that contractors take training or certification courses. Ask asbestos professionals to document their completion of federal or state-approved training. Each person performing work in your school, business, or residential facility should provide proof of training and

licensing in asbestos work, such as completion of Environmental Protection Agency (EPA) approved training. The DAQ maintains a [list of Utah certified asbestos companies](#)

If you have a problem that requires the services of asbestos professionals, check their credentials carefully. Hire professionals who are trained, experienced, reputable, and accredited – individual and company certification is required by Utah law. Before hiring a professional, ask for references from previous clients. Find out if they were satisfied. Ask whether the professional has handled similar situations. Get cost estimates from several professionals, as the charges for these services can vary.

Though private homes are usually not covered by the federal asbestos regulations that apply to schools and public buildings, professionals should still use procedures described during federal or state-approved training. Private homes are covered by Utah Administrative Code (UAC) R307-801 when work there is a contract for hire. One should be alert to the chance of misleading claims by asbestos consultants and contractors. There have been reports of firms incorrectly claiming that asbestos materials must be replaced. In other cases, firms have encouraged unnecessary removals or performed them improperly. Unnecessary removals are a waste of money. Improper removals may actually increase the health risks to occupants. To guard against this, know what services are available and what procedures and precautions are needed to do the job properly.

In addition to general asbestos contractors, you may select a roofing, flooring, siding, or plumbing contractor trained to handle asbestos when it is necessary to remove and replace roofing, flooring, siding or plumbing. Contractors are subject to state licensing requirements if they perform asbestos work affecting more than three square or linear feet. Air monitoring before and after the work activities may be necessary to assure that the contractor's job is performed properly. This should be done by someone not affiliated with the contractor.

If You Hire a Professional Asbestos Inspector

- Make sure that the inspection will include a complete visual examination and the careful collection and lab analysis of samples. If asbestos is present, the inspector should provide a written report/evaluation describing its location, extent of damage, and give recommendations for correction or prevention.
- Make sure an inspecting firm makes frequent site visits if it is hired to ensure that a contractor follows proper procedures and requirements.

The inspector may recommend and perform checks after the correction to ensure the area has been properly cleaned.

If You Hire an Abatement or Renovation Contractor

- Check with the DAQ, the local agency responsible for worker safety, and the Better Business Bureau. Ask if the firm has had any safety violations. Find out if there are legal actions filed against the firm.
- Insist that the contractor use the proper equipment to do the job. The workers must wear approved respirators, gloves, and other protective clothing.
- Before work begins, get a written contract specifying the work plan, cleanup, and the applicable federal, state, and local regulations which the contractor must follow (such as notification requirements and asbestos disposal procedures). Contact the DAQ, local health departments and the Occupational Safety and Health Administration (OSHA) [Utah OSHA Regional Office](#) to learn about the regulations. Be sure the contractor follows local asbestos removal and disposal laws. At the end of the job, get written assurance from the contractor that all procedures have been followed.
- Assure that the contractor avoids spreading or tracking asbestos dust into other areas of your school, business, or residential facility. They should seal the work area from the rest of the building using plastic sheeting and duct tape, and also turn off the heating and air conditioning system. For some repairs, such as pipe insulation removal, plastic glove bags may be adequate. They must be sealed with tape and properly disposed of when the job is complete.
- Make sure the work site is clearly marked as a hazard area. Do not allow occupants and pets into the area until work is completed.
- Insist that the contractor apply a wetting agent to the asbestos material with a hand sprayer that creates a fine mist before removal. Wet fibers do not float in the air as easily as dry fibers and will be easier to clean up.
- Make sure the contractor does not break removed material into small pieces. This could release asbestos fibers into the air. Pipe insulation was usually installed in preformed blocks and should be removed in complete pieces.
- Upon completion, ensure that the contractor cleans the area well with wet mops, wet rags, sponges, or HEPA vacuum cleaners. All asbestos materials and disposable equipment and clothing used in the job must

be placed in sealed, leak-proof, and labeled plastic bags. The work site should be visually free of dust and debris.

The preceding information is taken from EPA web sites and the 1990 document entitled *Asbestos in Your Home*. This information is of value to building owners and the people responsible for building maintenance, homeowners and renters. [Protect Your Family from Exposures to Asbestos](#)

More information

For more information on asbestos identification and control activities in Utah, please contact:

Utah Division of Air Quality
195 North 1950 West
PO Box 144820
Salt Lake City, Utah 84114-4820
Phone (801) 536-4000
www.asbestos.utah.gov

[Local Health Departments](#)

US EPA, Region 8 Denver, CO,
303-312-6312
800-227-8917
<https://www.epa.gov/asbestos>

For more information on asbestos in other consumer products, call the Consumer Product Safety Commission (CPSC) Washington, DC Hotline. The CPSC Hotline has information on certain appliances and products, such as the brands and models of hair dryers that contain asbestos.

CPSC Hotline
1-800-638-2772
(TTY) 1-800-638-8270
<https://www.cpsc.gov/>

R307-801-13. Asbestos Abatement and Renovation Project: Work Practices.

- (1) An asbestos abatement supervisor who has been certified under R307-801-6 shall be on-site during asbestos abatement project setup, asbestos removal, stripping, cleaning and dismantling of the project, and other handling of uncontainerized regulated asbestos-containing material (RACM).
- (2) All persons handling any amount of uncontainerized RACM during a regulated project shall be certified as an asbestos abatement worker or an asbestos abatement supervisor certified under R307-801-6.
- (3) Persons performing an asbestos abatement or renovation project at a regulated facility shall follow the work practices in R307-801-13. Where the work practices in R307-801-13(3) and (4) are required, wrap and cut, open top catch bags, glove bags, and mini-enclosures may be used in combination with those work practices.
 - (a) Adequately wet regulated asbestos-containing material (RACM) with amended water before exposing or disturbing it, except when temperatures are continuously below freezing (32 degrees F.), and when all requirements in 40 CFR 61.145(c)(7) are met.
 - (b) Install barriers and post warning signs to prevent access to the work area. Warning signs shall conform to the specifications of 29 CFR 1926.1101(k)(7).
 - (c) Keep RACM adequately wet until it is containerized and disposed of in accordance with R307-801-14.
 - (d) Ensure that RACM that is stripped or removed is promptly containerized.
 - (e) Prevent visible particulate matter and uncontainerized asbestos-containing debris and waste originating in the work area from being released outside of the negative pressure enclosure or designated work area.
 - (f) Filter all waste water to five microns before discharging it to a sanitary sewer.
 - (g) Decontaminate the outside of all persons, equipment, and waste bags so that no visible residue is observed before leaving the work area.
 - (h) Apply encapsulant to RACM that is exposed but not removed during stripping.
 - (i) Clean the work area, drop cloths, and other interior surfaces of the enclosure using a high-efficiency particulate air (HEPA) vacuum and wet cleaning techniques until there is no visible residue before dismantling barriers.
 - (j) After cleaning and before dismantling enclosure barriers, mist all surfaces inside of the enclosure with a penetrating encapsulant designed for that purpose.
 - (k) Handle and dispose of friable asbestos-containing material (ACM) and RACM according to the disposal provisions of R307-801-14.
- (4) All operators of NESHAP-sized asbestos abatement projects shall install a negative pressure enclosure using the following work practices.
 - (a) All openings to the work area shall be covered with at least one layer of six mil or thicker polyethylene sheeting sealed with duct tape or an equivalent barrier to air flow.
 - (b) If RACM debris is present in the proposed work area prior to the start of a NESHAP-sized asbestos abatement project, the site shall be prepared by removing the debris using the work practice requirements of R307-801-13 and disposal requirements of R307-801-14. If the total amount of loose visible RACM debris throughout the entire work area is the SSSD amount, then site preparation may begin after the notification form has been submitted and before the end of the ten working day waiting period.
 - (c) A decontamination unit constructed to the specifications of R307-801-13(4)(h) shall be attached to the containment prior to disturbing RACM or commencing a NESHAP-sized asbestos abatement project, and all persons shall enter and leave the negative pressure enclosure or work area only through the decontamination unit except in a life threatening emergency situation.
 - (d) All persons subject to R307-801 shall shower before entering the clean-room of the decontamination unit when exiting the enclosure and shall follow all procedures required by 29 CFR 1926.1101(j)(1)(ii).
 - (e) No materials may be removed from the enclosure or brought into the enclosure through any opening other than a waste load-out or a decontamination unit.
 - (f) The negative pressure enclosure of the work area shall be constructed with the following specifications:
 - (i) Apply at least two layers of six mil or thicker polyethylene sheeting or its equivalent to the floor extending at least one foot up every wall and seal in place with duct tape or its equivalent;

- (ii) Apply at least two layers of four mil or thicker polyethylene sheeting or its equivalent to the walls without locating seams in wall or floor corners;
- (iii) Seal all seams with duct tape or its equivalent;
- (iv) Maintain the integrity of all enclosure barriers; and
- (v) Where a wall or floor will be removed as part of the NESHAP-sized asbestos abatement project, polyethylene sheeting need not be applied to that regulated facility component or structural member.
- (g) View ports shall be installed in the enclosure or barriers where feasible, and view ports shall be:
 - (i) At least one foot square;
 - (ii) Made of clear material that is impermeable to the passage of air, such as an acrylic sheet;
 - (iii) Positioned so as to maximize the view of the inside of the enclosure from a position outside the enclosure; and
 - (iv) Accessible to a person outside of the enclosure.
- (h) A decontamination unit shall be constructed according to the following specifications:
 - (i) The unit shall be attached to the enclosure or work area;
 - (ii) The decontamination unit shall consist of at least three chambers and meet all regulatory requirements of 29 CFR 1926.1101(j)(1)(i);
 - (iii) The clean room, which is the chamber that opens to the outside, shall be no less than three feet wide by three feet long by six feet high, when feasible;
 - (iv) The shower room, which is the chamber between the clean and dirty rooms, shall have hot and cold or warm running water and be no less than three feet wide by three feet long by six feet high, when feasible;
 - (v) The dirty room, which is the chamber that opens to the negative pressure enclosure or the designated work area, shall be no less than three feet wide by three feet long by six feet high, when feasible;
 - (vi) The dirty room shall be provided with an accessible waste bag at any time that asbestos abatement project is being performed.
- (i) A separate waste load-out following the specifications below may be attached to the enclosure for removal of decontaminated waste containers and decontaminated or wrapped tools from the enclosure.
 - (i) The waste load-out shall consist of at least one chamber constructed of six mil or thicker polyethylene walls and six mil or thicker polyethylene flaps or the equivalent on the outside and inside entrances;
 - (ii) The waste load-out chamber shall be at least three feet long, three feet high, and three feet wide; and
 - (iii) The waste load-out supplies shall be sufficient to decontaminate bags, and shall include a water supply with a filtered drain, clean rags, disposable rags or wipes, and clean bags.
- (j) Negative air pressure and flow shall be established and maintained within the enclosure by:
 - (i) Maintaining at least four air changes per hour in the enclosure;
 - (ii) Routing the exhaust from HEPA filtered ventilation units to the outside of the regulated facility whenever possible;
 - (iii) Maintaining a minimum of 0.02 column inches of water pressure differential relative to outside pressure; and
 - (iv) Maintaining a monitoring device to measure the negative pressure in the enclosure.
- (5) In lieu of two layers of polyethylene on the walls and the floors as required by R307-801-13(4)(f)(i) and (ii), the following work practices and controls may be used only under the circumstances described below:
 - (a) When a pipe insulation removal asbestos abatement project is conducted the following may be used:
 - (i) Drop cloths extending a distance at least equivalent to the height of the RACM around all RACM to be removed, or extended to a wall and attached with duct tape or equivalent;
 - (ii) Either the glove bag or wrap and cut methods may be used; and
 - (iii) RACM shall be adequately wet before wrapping.
 - (b) When the RACM is scattered ACM and is found in small patches, such as isolated pipe fittings, the following procedures may be used:
 - (i) Glove bags, mini-enclosures as described in R307-801-13(7)(c), or wrap and cut methods with drop cloths large enough to capture all RACM fragments that fall from the work area may be used.
 - (ii) If all asbestos disturbance is limited to the inside of negative pressure glove bags or a mini-

enclosure, then non-glove bag or non-mini-enclosure building openings need not be sealed and negative pressure need not be maintained in the space outside of the glove bags or mini-enclosure during the asbestos removal operation.

(iii) A remote decontamination unit may be used as described in R307-801-13(7)(d) only if an attached decontamination unit is not feasible.

(c) When a preformed RACM pipe insulation asbestos abatement project in a crawl space or pipe chase less than six feet high or less than three feet wide is conducted, the following may be used:

(i) Drop cloths extending a distance at least six feet around all preformed RACM pipe insulation to be removed or extended to a wall and attached with duct tape or equivalent; or

(ii) The open top catch bag method.

(6) During outdoor asbestos abatement projects, the work practices of R307-801-13 shall be followed with the following modifications:

(a) Negative pressure need not be maintained if there is not an enclosure;

(b) Six mil polyethylene drop cloth, or equivalent, large enough to capture all RACM fragments that fall from the work area shall be used; and

(c) A remote decontamination unit as described in R307-801-13(7)(d) may be used.

(7) Special work practices.

(a) If the wrap and cut method is used:

(i) The regulated facility component shall be cut at least six inches from any RACM on that component;

(ii) If asbestos will be removed from the regulated facility component to accommodate cutting, the asbestos removal shall be performed using a single glove bag for each cut, and no RACM shall be disturbed outside of a glove bag;

(iii) The wrapping shall be leak-tight and shall consist of two layers of six mil polyethylene sheeting, each individually sealed with duct tape, and all RACM between the cuts shall be sealed inside wrap; and

(iv) The wrapping shall remain intact and leak-tight throughout the removal and disposal process.

(b) If the open top catch bag method is used:

(i) The material to be removed can only be preformed RACM pipe insulation, and it shall be located in a crawl space or a pipe chase less than six feet high or less than three feet wide;

(ii) Asbestos waste bags that are leak-tight and strong enough to hold contents securely shall be used;

(iii) The bag shall be placed underneath the stripping operation to minimize ACM falling onto the drop cloth;

(iv) All material stripped from the regulated facility component shall be placed in the bag;

(v) One asbestos abatement worker shall hold the bag and another asbestos abatement worker shall strip the ACM into the bag; and

(vi) A drop cloth extending a distance at least six feet around all preformed RACM pipe insulation to be removed, or extended to a wall and attached with duct tape or equivalent shall be used.

(c) If glove bags are used, they shall be under negative pressure, and the procedures required by 29 CFR 1926.1101(g)(5)(iii) shall be followed.

(d) A remote decontamination unit may be used under the conditions set forth in R307-801-13(5)(b) and (6), when there is an area insufficient to construct a connected decontamination unit, or when approved by the director. The remote decontamination unit shall meet all construction standards in R307-801-13(4)(h) and shall include:

(i) Outerwear shall be HEPA vacuumed or removed, and additional clean protective outerwear shall be put on;

(ii) Either polyethylene sheeting shall be placed on the path to the decontamination unit and the path shall be blocked or taped off to prevent public access, or asbestos abatement workers shall be conveyed to the remote decontamination unit in a vehicle that has been lined with two layers of six mil or thicker polyethylene sheeting or its equivalent; and

(iii) The polyethylene path or vehicle liner shall be removed at the end of the project, and disposed of as ACWM.

(e) Mini-enclosures, when used under approved conditions, shall conform to the requirements of 29 CFR 1926.1101(g)(5)(vi).

(8) For asbestos-containing mastic removal projects using mechanical means, such as a power buffer, to loosen or remove mastic from the floor, in lieu of two layers of polyethylene sheeting

on the walls, splash guards of six mil or thicker polyethylene sheeting shall be placed from the floor level a minimum of three feet up the walls.

(9) Persons who improperly disturb more than the SSSD amount of asbestos-containing material and contaminate an area with friable asbestos shall:

(a) Have the emergency clean-up portion of the project, including any portions not contained within a regulated facility or in common use areas that cannot be isolated, performed as soon as possible by a company or companies certified according to R307-801-5, and, asbestos abatement supervisor(s), and asbestos abatement worker(s) certified according to R307-801-6.

(b) Have an asbestos clean-up plan designed by a Utah certified asbestos project designer for the non-emergency portion of the project and have the asbestos clean-up plan submitted to the director for approval. An asbestos clean-up plan is not required when the disturbance results from a natural disaster, fire, or flooding.

(c) Submit the project notification form required by R307-801-11 and 12 to the director for acceptance no later than the next working day after the disturbance occurs or is discovered. For fee calculation purposes, the size of the emergency clean-up project is the area that has been contaminated or potentially contaminated by the disturbance and not the amount of asbestos-containing material disturbed.

(d) Notify the director of project completion by telephone, fax, or electronic means by the day of completion and before leaving the site.

(10) For asbestos abatement, renovation, or demolition projects that remove or otherwise disturb loose-fill vermiculite type insulation materials assumed to be regulated asbestos-containing material or found to contain greater than 1% regulated asbestiform fibers, then the material being removed is considered regulated asbestos-containing material and shall meet all the appropriate regulatory requirements of R307-801.

(a) Regulated vermiculite shall be removed to the maximum extent possible, or by following a work practice that has been established by the director, or by an alternative work practice as approved by the director.

R307-801-14. Disposal and Handling of Asbestos Waste.

(1) Owners and operators of regulated facilities shall containerize asbestos-containing waste material (ACWM) while adequately wet.

(2) ACWM containers shall be leak-tight and strong enough to hold contents securely and be labeled with an OSHA warning label found in 29 CFR 1926.1101(k)(8).

(3) Containers shall be labeled with the waste generator's and contractor's names, addresses, and telephone numbers before they are removed from the asbestos renovation or abatement work area.

(4) Containerized regulated asbestos-containing material (RACM) shall be disposed of at a landfill which complies with 40 CFR 61.150.

(5) The waste shipment record shall include a list of items and the amount of ACWM being shipped. The waste generator originates and signs this document.

(6) Owners and operators of regulated facilities where an asbestos abatement or renovation project has been performed shall report in writing to the director if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the waste generator within 45 working days from the date the waste was accepted by the initial transporter. Include in the report the following information:

(a) A copy of the waste shipment record for which a confirmation of delivery was not received; and

(b) A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.

R307-801-16. Certified Renovator Work Practices.

(1) Certified renovators are responsible for ensuring compliance with R307-801 at all renovation projects at regulated facilities to which they are assigned.

(2) Certified renovators working at regulated facilities shall:

(a) Perform all of the tasks described in R307-801-13(3) and shall either perform or direct workers who perform all tasks described in R307-801-13(3);

(b) Provide training to workers on the work practices required by R307-801-13(3) that will be used when performing renovation projects;

- (c) Be physically present at the work site when all work activities required by R307-801-13(3)(b) are posted, while the work area containment required by R307-801-13(3)(b) is being established, and while the work area cleaning required by R307-801-13(3)(i) is performed;
- (d) Be on-site and direct work being performed by other individuals to ensure that the work practices required by R307-801-13(3) are being followed, including maintaining the integrity of the containment barriers and ensuring that dust or debris does not spread beyond the work area;
- (e) Have with them at the work site their current Utah Renovator certification card; and
- (f) Prepare the records required by R307-801-15.



AIR QUALITY

Utah Asbestos Abatement and Renovation Pamphlet Delivery Confirmation Form

This sample form may be used by asbestos abatement and renovation companies (contractors) to document compliance with the requirements of Utah Administrative Code R307-801-17.

Occupant Confirmation

Pamphlet Receipt

_____ I received a copy of the Utah Asbestos Hazards During Abatement and Renovation Activities pamphlet (pamphlet) informing me of the potential risks of asbestos hazard exposure from abatement or renovation activities to be performed in my school, business, or residential facility. I received this pamphlet before the work began.

Printed Name of School Official, Business Owner, or Occupant

School Official, Business Owner, or Occupant

Signature Date

Signature of

Contractor's Self Certification Option

Instructions to contractor: If the pamphlet was delivered but a School Official, Business Owner, or Occupant's signature was not obtainable, you may check the appropriate box below.

_____ **Declined** – I certify that I have made a good faith effort to deliver the pamphlet to the School, Business, or residential facility listed below at the date and time indicated and that the School Official, Business Owner, or Occupant declined to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the School, Business, or residential facility with the School Official, Business Owner, or Occupant.

_____ **Unavailable for signature** – I certify that I have made a good faith effort to deliver the pamphlet to the School, Business, or residential facility listed below and that the School Official, Business Owner, or Occupant was unavailable to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the School, Business, or residential facility by:

Please fill out how pamphlet was left

Printed Name of Person Certifying Delivery

Attempted Delivery Date

Signature of Person Certifying pamphlet Delivery

School, Business, or residential facility Name:

Street Address:

City, State, Zip Code:

Note Regarding Mailing Option -- As an alternative to delivery in person, you may mail the pamphlet to the owner and/or occupant. The pamphlet must be mailed at least 7 days before abatement or renovation. Mailing must be documented by a certificate of mailing from the post office.