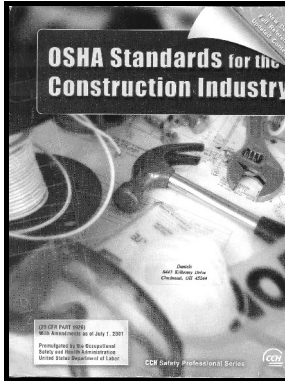


## LEGAL REVIEW & UPDATE



There are lots of laws and regulations designed to protect workers, the general public, and the environment. However, not everyone follows the laws. Many people deliberately break the law. Others simply do not know the requirements.

These laws are for your protection. By knowing and following the laws, you can ensure the safety of the workplace and your community.

The following is a brief summary of the federal laws governing working around asbestos. They list minimum standards of safety. They are not all-inclusive. Be sure to check any applicable state and local laws before working with asbestos.

### Exposure Limits

Exposure limits are considered to be safe for the average worker. Keep in mind that everyone is different. Genetic makeup or previous exposures may affect your reactions to certain chemicals.

Exposure limits are listed in several ways. Most chemicals (including asbestos) are listed as a **Time Weighted Average** or TWA. TWAs are usually an average exposure for an 8 hour shift.

The **Permissible Exposure Limit** or PEL for asbestos is **0.1 f/cc** TWA. This means that workers cannot be exposed above 0.1 f/cc averaged over an 8-hour period. (f = fiber; cc = cubic centimeter)

Many times the exposure limit is also listed as an **Excursion Limit**. This is an exposure over a much shorter time. Excursion limits are **usually either 15 or 30 minutes**. The Excursion Limit for asbestos is **1 f/cc over 30 minutes**. This means that no worker can be exposed above 1 f/cc for more than 30 minutes in any 8 hour period.

### PEL of 0.1 f/cc

cc = cubic centimeter

1cc = size of one sugar cube

1000 cc per 1 liter of air

0.1 f/cc x 1000cc = 100 fibers per liter of air

We breathe an average of 30 liters of air per minute.

30 lpm x 100 fibers = 3000 fibers per minute

60 minutes x 3000 fibers = 180,000 fibers per hour

## Regulated Areas

Asbestos work is divided into four categories:

- △ **Class I** asbestos work is the removal of thermal/sound insulation and surfacing ACM. It is usually considered demolition work.
- △ **Class II** is removal of non-friable asbestos. Sheet goods, floor tile, siding, and mastics fall in this category.
- △ **Class III** is repair work where the asbestos is likely to be disturbed.
- △ **Class IV** is maintenance or custodial work where the asbestos is **not likely** to be disturbed.

For any Class I, II, or III work, a **regulated area** must be established.

- △ The area must be **marked or roped off** to prevent unauthorized

- people from going in.
- △ Anyone who enters must wear a respirator and protective clothing whenever a **negative exposure assessment (NEA)** has not been conducted.
  - △ **No eating, drinking, smoking, chewing gum or putting on make-up is allowed.**
  - △ Whenever there has been no NEA, **negative pressure enclosures** must be set up unless it is absolutely impossible.
  - △ A "**competent person**" must be on site at all times. The competent person must have an EPA-approved asbestos supervisor course. He or she is responsible for making sure all regulations are being followed and all safety and health precautions are taken.

**NOTE:** Enclosures and a competent person are not required for small-scale, short duration jobs, such as pipe repair, installing or removing drywall, and building maintenance.

## Monitoring



Employers are required to perform monitoring to determine the airborne concentrations of asbestos to which an employee may be exposed. A small battery operated **personal sampling pump** is worn by one or more workers in the work area.

Employee exposures must be taken in the employee's **breathing zone**. This is an area within **12"** of the nose and mouth from the ears forward. The sample is collected in a special black "cyclone" cartridge and sent to a lab for analysis.

This sample is used to determine what protective equipment is needed. The sample is called a **representative sample**. This means that the data collected from this sample can be applied to several workers, as long as they are all doing the same type of work. The sample must be collected from a worker that is doing the work likely to result in the highest exposure. Employees must be protected as if they were working at a higher level of exposure until it is proven that their exposure is lower.

### Notification

The employer must give the results of air monitoring to the workers on that job as soon as possible after the results are received. (This usually should mean by the following day.)

- ☒ The results must be given in writing or posted in a central place.
- ☒ Workers or union reps must be allowed to watch the monitoring if they want to.
- ☒ Workers are to be informed of the location and amounts of asbestos.

### Keeping Asbestos Out of the Air

**Engineering controls and work practices** must be used to keep asbestos levels in the air below the PEL and the excursion limit. **Respirators and PPE are not the first choice for protecting workers.** Every effort must be made to lower or eliminate exposures before using PPE.

**Methods for lowering or eliminating exposures can include:**

- ✓ Negative air machines;
- ✓ Power tools with HEPA exhaust systems;
- ✓ HEPA vacuums;
- ✓ Wet methods; and
- ✓ Prompt clean up of asbestos waste.



**Methods that are not allowed are:**

- ✗ High-speed abrasive disc saws that do not have a HEPA exhaust

- ✗ Compressed air cleaning
- ✗ Dry sweeping or removal methods
- ✗ Employee rotation to lower exposures

## Respirators

Respirators must be worn on all asbestos jobs where the excursion limit or the permissible exposure limit is likely to be reached or exceeded. **Respirators are covered in 29CFR1926.1101 (the Asbestos Standard) and in 29CFR1910.134 (Respiratory Protection).** The following is a listing of the main points of respiratory protection for asbestos.

1. **No disposable dust masks allowed.**
2. The employer must provide a **PAPR** (Powered Air Purifying Respirator) instead of a negative pressure respirator if the worker requests it and if it meets the required protection factor.
3. Workers must be allowed to change their filters whenever it becomes **difficult to breathe.**
4. Workers must be allowed to leave the work area to wash their faces and respirator face pieces whenever their skin becomes irritated from wearing the respirator.
5. The employer must choose the respirator based on air monitoring results and the OSHA respirator table.
6. The employer must have a written respirator protection program.
7. **Employees must be fit-tested at least once every year.**
8. **Qualitative fit-testing** with irritant smoke, BitriX<sup>®</sup>, saccharin, or banana oil can be used with half face, air purifying respirators (APRs), powered air purifying respirators, or with positive pressure respirators
9. **Quantitative fit-testing** must be used with full face APRs. Otherwise, they can only be used in areas approved for half-face APRs.



**Powered Air Purifying Respirator (PAPR)**

## Protective Clothing

Protective clothing must be worn when the PEL or excursion limit might be exceeded.

Protective clothing includes:



- △ Coveralls
- △ Hoods



- △ Gloves
- △ Foot coverings

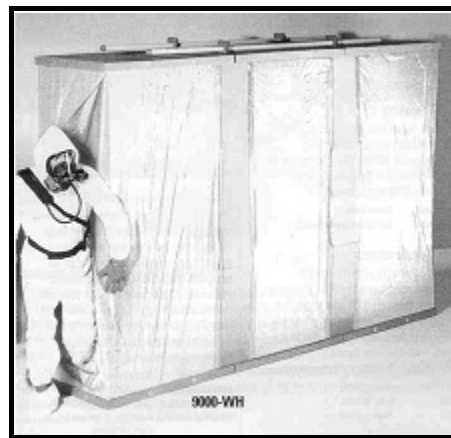


The employers are required to clean the clothing if it is not disposable. Used disposable suits are considered to be asbestos waste. Rips or tears in suits must be taped up immediately or the suit must be replaced.

## Hygiene Practices

### Decontamination

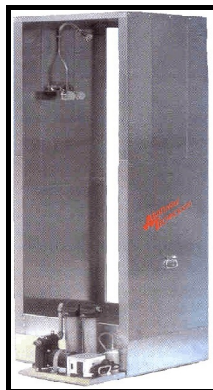
Decons must have at least an equipment room, shower, and clean room. They must be connected to the work area. Workers enter and leave the work area only through the decon.



### Showers

Showers must comply with **29 CFR 1910.141(d)(3)**. This means:

- △ One shower for every 10 people (or less) of each sex who are required to shower during the same shift. There must be a separate shower for men and women.



- △ Showers must have hot and cold water with the ability to adjust the temperature of the water.
- △ Clean towels must be provided for each employee.
- △ Soap or other cleaner must be provided.
- △ In addition, the employer shall insure that employees

do not eat, drink, smoke, chew gum or other materials, or apply cosmetics in a contaminated area.

## Hazard Communication

As a worker, you have a right to know about the hazards you are working around. You must be told of any asbestos that may be in the areas where you are going to work **[29CFR1926.1101(k)(2)(ii)(B)]**. You also have a right to know about any other chemicals that are being used on the worksite. These rights are listed in the Hazard Communication Standard **(29CFR1926.59)**.

If the building is occupied while work is being done, the occupants of the building also have a right to know about the asbestos hazards.

**Paragraph (k)** of the Asbestos standard states that:

- △ The building owners must determine the presence, location, and amount of asbestos before work begins.
- △ This information must be communicated to all employers, workers, and tenants of the building.
- △ Regulated areas must be established to limit employee or occupant entry into areas where asbestos is present. Warning signs must be posted.
- △ All potentially exposed employees must be trained to recognize the hazards and protective measures to lessen their exposure.

## Medical Surveillance

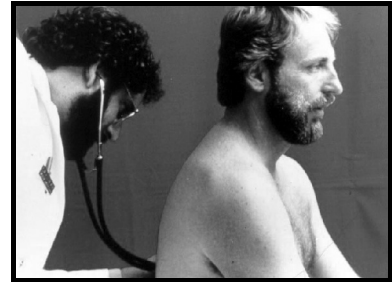
For employees exposed at or above the PEL of asbestos 30 or more days per year, or wear a negative pressure respirator, the employer shall institute a medical surveillance program. This program consists of physical exams under the direction of a licensed physician. In addition, the exams:

- △ must be at no cost to the employee.
- △ must be at a reasonable time and place.
- △ must be prior to an employee wearing a negative pressure

- respirator.
- △ may be more often if determined by the physician.

### Content of the Exam

- △ Medical and work history.
- △ Mandatory questionnaire in Appendix D of the Asbestos Standard.
- △ Pulmonary function test.
- △ Any other tests that the physician feels necessary.



General Physical Exam

The physician must send a written opinion to the employer containing the physician's opinion as to whether the employee is medically able to perform the work. Included in the report:

- △ Any condition which would place the employee at an increased risk due to exposure to asbestos.
- △ Any limitations concerning wearing any of the required PPE.
- △ Nothing unrelated to the employee's ability to perform the assigned tasks.

In addition to the above summary, the employer shall furnish a copy of the written opinion **to the employee within 30 days**.

### Recordkeeping

1. If the employer has supporting data that the asbestos products being used are not capable of releasing fibers, a copy of that data must be kept.
2. All monitoring reports, including date, work task, PPE, and names of employees exposed must be kept for 30 years after employment.
3. Any medical surveillance reports must be kept for **30 years after employment**.
4. Any notifications of identification, location, and amount of asbestos in a structure must be kept and transferred to successive owners.
5. All of these records are available to employees, their representatives, and any involved agencies.

Even though your employer is supposed to keep your records for 30 years after you leave the job, **it is a good idea to get a copy of your records when you leave.** Keep them in a safe place. You or your family may need them 10 - 40 years in the future.

## Competent Person

The employer must have a competent person on every asbestos job when work is being performed. The duties of the competent person include frequent and regular inspections of the entire work site.

In addition to the regular inspections, **on Class I jobs the competent person shall inspect the job at least once every shift.**

For Class I and II jobs, the duties include:

- ✓ Supervise the set up of the regulated area, enclosure or other containment.
- ✓ Ensure the integrity of the containment.
- ✓ Supervise all monitoring.
- ✓ Ensure that employees are using the proper PPE.
- ✓ Ensure that all engineering controls, work practices and PPE are used correctly.
- ✓ Ensure that decontamination and hygiene practices are followed.
- ✓ Ensure that all notification practices are followed.

The above was a brief summary of the Federal Asbestos standard. It is by no means a complete listing of all of the requirements of the standard. Be sure to check all applicable Federal, State, and Local regulations. In addition to this summary, other laws and regulations apply to asbestos work.

## EPA

The Environmental Protection Agency, or EPA, also regulates asbestos. In the OSHA Asbestos standard, reference was made to training, but gave no specific guidelines. The standard stated that training must be equivalent to the **EPA Model Accreditation Plan (MAP)**. There are several parts to EPA asbestos regulations. The following is a summary of these parts.

## AHERA

The Asbestos Hazard Emergency Response Act of 1987 required that **all schools K - 12** be inspected for asbestos. Schools identified as containing asbestos must develop an **Operations and Maintenance Program**. Anyone dealing with asbestos in schools – workers, supervisors, inspectors, and management planners – must go through special training and receive accreditation.

## ASHARA

In 1992, AHERA was amended by the Asbestos School Hazard Abatement Reauthorization Act. **ASHARA extended training requirements to asbestos workers, supervisors, and inspectors in all public and commercial buildings.**

## ASHAA

The Asbestos School Hazard Abatement Act required the EPA to provide technical assistance to schools in carrying out their asbestos hazard responsibilities. It required EPA to provide funds for training people involved in asbestos removal and inspections. It also provided for funding to assist abatement of asbestos materials.

## NESHAP

The **National Emission Standards for Hazardous Air Pollutants** is part of the **Clean Air Act**. NESHAP covers all public and private buildings except private homes and apartment buildings with four or less living units.

NESHAP says that you must keep asbestos out of the air. It also affects how asbestos work is done. Some of the requirements of NESHAP are:

- ⊞ Any job with 160 square feet, 260 lineal feet, or 35 cubic feet is considered a large job.
- ⊞ If there are several small jobs on the same site that if combined would equal a large job, they must be combined.
- ⊞ Asbestos must be adequately wet before it is removed or placed in airtight containers.
- ⊞ Cannot drop Asbestos more than 50' in removal or demolition.

- △ Employers must notify EPA at least 10 days before the start of a job, and if the start date changes.
- △ Buildings must be inspected for asbestos before demolition or renovations begin.
- △ Waste must be in sealed containers or wrapped in plastic and labeled with the location of the job and the name of the generator.

## Ban and Phase Out Rule

The Ban and Phase Out Rule of **1989** began a seven year phased ban on all asbestos products. The ban covered flooring products, ceiling products, brakes, clutch faces and several other products. The 5<sup>th</sup> Circuit Court of Appeals overturned the Ban in 1991. **Part of the ruling stated that all asbestos products that were off of the market when the ban was overturned would not be allowed to be reintroduced.**

## Additional Legislation

In addition to OSHA and EPA Regulations, many states have their own laws regulating working around asbestos. These laws must be at least as protective as federal legislation. They can be more protective. Many municipalities have also passed laws regulating asbestos work. Be sure to check all applicable laws and regulations before working with asbestos.

## Key Facts

**OSHA enforces laws that affect worker safety and health on asbestos jobs.**

**EPA enforces laws that affect the environment.**

**AHERA is an EPA rule that covered asbestos in all schools K - 12.**

**ASHARA defines AHERA training requirements and extended AHERA coverage to all public buildings.**

**NESHAP set rules concerning:**

- **notification of demolition or renovation.**
- **work practices for removal of asbestos.**
- **no visible emissions of asbestos to outside the abatement area.**
- **waste disposal requirements.**
- **inspection prior to demolition or renovations.**

**The Ban and Phase Out Rule of 1989 was to eliminate the use of asbestos in seven years. It was overturned in 1991. All products that had been removed from the market before the reversal could not be reintroduced.**